

# JVC

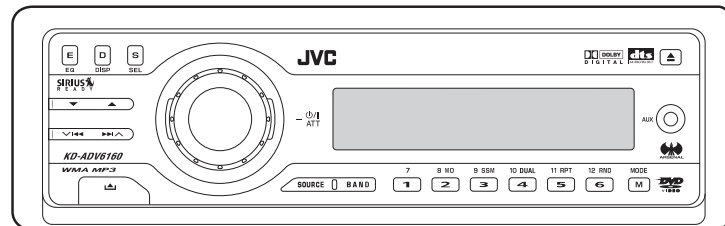
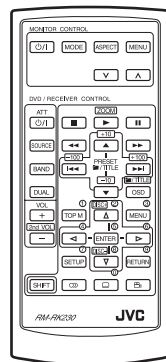
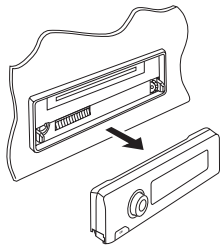
## SERVICE MANUAL

### DVD/CD RECEIVER

## KD-ADV6160

Area suffix

J ----- Northern America



**WMA  
MP3**

**SIRIUS  
READY**

**DOLBY  
DIGITAL**

**dts  
2.0+DIGITAL OUT**

**DVD  
VIDEO**

**COMPACT  
disc  
DIGITAL VIDEO**

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# SPECIFICATION

AUDIO AMPLIFIER SECTION		
Power Output		20 W RMS × 4 Channels at 4 Ω and [ $<$ or $=$ ] 1% THD+N
Signal to Noise Ratio		80 dBA (reference: 1 W into 4 Ω)
Load Impedance		4 Ω (4 Ω to 8 Ω allowance)
Equalizer Control Range	Frequencies	60 Hz, 150 Hz, 400 Hz, 1 kHz, 2.4 kHz, 6 kHz, 15 kHz
	Level	±10 dB
Audio Output Level	Analog (2nd AUDIO OUT)	6 mW (at 16 Ω)
	Digital (DIGITAL OUT: Optical)	Signal wave length: 660 nm Output level: -21 dBm to -15 dBm
	Line-Out Level/Impedance	5.0 V/20 kΩ load (full scale)
	Output Impedance	1 kΩ
Subwoofer-Out Level/Impedance		2.0 V/20 kΩ load (full scale)
Color System		NTSC
Video Output (composite)		1 Vp-p/75 Ω
Other Terminals		LINE IN, CD changer
TUNER SECTION		
Frequency Range	FM	87.5 MHz to 107.9 MHz (with channel interval set to 200 kHz) 87.5 MHz to 108.0 MHz (with channel interval set to 50 kHz)
	AM	530 kHz to 1 710 kHz (with channel interval set to 10 kHz) 531 kHz to 1 602 kHz (with channel interval set to 9 kHz)
FM Tuner	Usable Sensitivity	11.3 dBf (1.0 μV/75 Ω)
	50 dB Quieting Sensitivity	16.3 dBf (1.8 μV/75 Ω)
	Alternate Channel Selectivity (400 kHz)	65 dB
	Frequency Response	40 Hz to 15 000 Hz
	Stereo Separation	35 dB
	Capture Ratio	1.5 dB
AM Tuner	Sensitivity	20 μV
	Selectivity	35 dB
DVD/CD PLAYER SECTION		
Signal Detection System		Non-contact optical pickup (semiconductor laser)
Number of Channels		2 channels (stereo)
Frequency Response	DVD, fs=48 kHz/96 kHz	16 Hz to 22 000 Hz
	VCD, CD, MP3, WMA	16 Hz to 20 000 Hz
Dynamic Range		96 dB
Signal-to-Noise Ratio		98 dB
Wow and Flutter		Less than measurable limit
MP3 (MPEG Audio Layer 3)		Max. Bit Rate: 320 kbps
WMA (Windows Media Audio)		Max. Bit Rate: 192 kbps
GENERAL		
Power Requirement	Operating Voltage	DC 14.4 V (11 V to 16 V allowance)
Grounding System		Negative ground
Allowable Operating Temperature		0°C to +40°C (32°F to 104°F)
Dimensions (W × H × D)	Installation Size (approx.)	182 mm × 52 mm × 158 mm (7-3/16" × 2-1/16" × 6-1/4")
	Panel Size (approx.)	188 mm × 58 mm × 11 mm (7-7/16" × 2-5/16" × 7/16")
Mass (approx.)		1.7 kg (3.7 lbs) (excluding accessories)

Design and specifications are subject to change without notice.

# SECTION 1

## PRECAUTIONS

### 1.1 Safety Precautions



**CAUTION** Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.



**CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

## 1.2 Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

### 1.2.1 Grounding to prevent damage by static electricity

Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players.

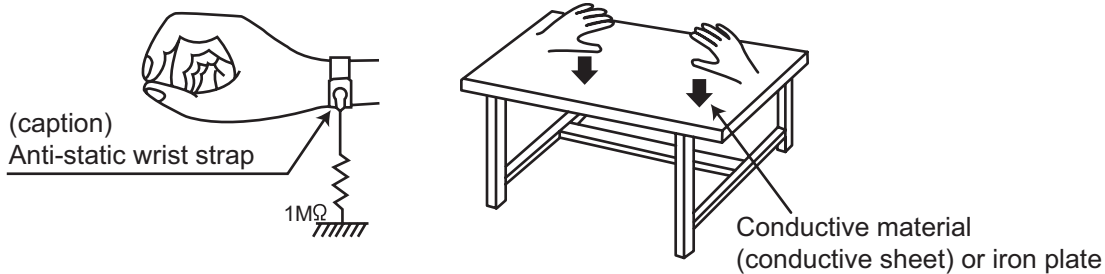
Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup

- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

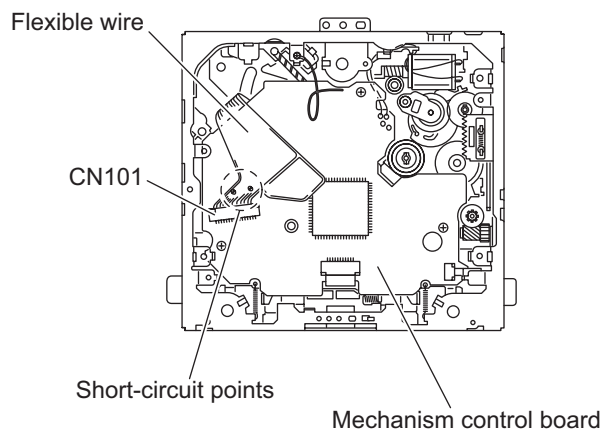
## 1.3 Handling the traverse unit (optical pickup)

- (1) Before disconnecting the flexible wire from the connector [CN101](#) on the mechanism control board, solder the short-circuit points on the flexible wire.

**Caution:**

If you do not follow this instruction, the DVD pickup may be damaged.

- (2) Disconnect the flexible wire from the connector [CN101](#) on the mechanism control board.
- (3) Remove the solders from the short-circuit points on the flexible wire after replacing the DVD pickup.
- (4) Connect the flexible wire to the connector [CN101](#) on the mechanism control board.



## **SECTION 2**

### **SPECIFIC SERVICE INSTRUCTIONS**

This service manual does not describe SPECIFIC SERVICE INSTRUCTIONS.

## SECTION 3 DISASSEMBLY

### 3.1 Main body section

#### 3.1.1 Removing the front panel assembly (See Fig.1)

Push the detach button in the lower left part of the front panel assembly and remove the front panel assembly.

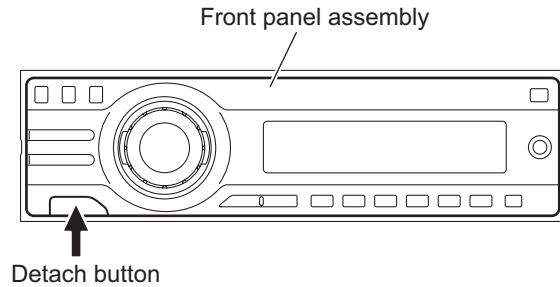


Fig.1

#### 3.1.2 Removing the bottom cover (See Fig.2)

##### Reference:

Remove the front panel assembly as required.

- (1) Release the two joints **a**, two joints **b** and joint **c**.
- (2) Remove the bottom cover from the main body.

##### Caution:

Do not damage the main board when releasing the joints using a screwdriver or a similar tool.

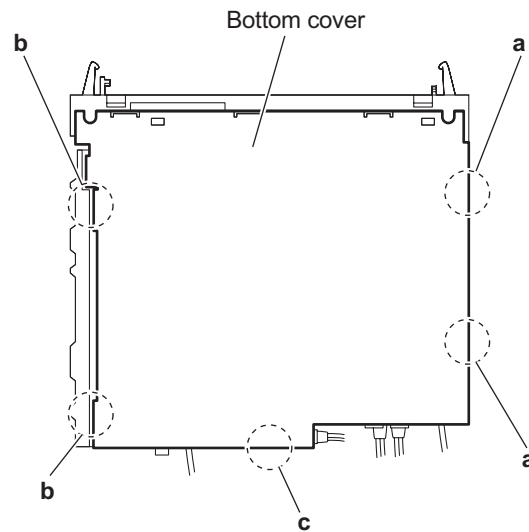


Fig.2

### 3.1.3 Removing the front chassis assembly (See Figs.3 and 4)

- Remove the front panel assembly and bottom cover.
  - (1) From the front side of the main body, remove the two screws **A** attaching the front chassis assembly. (See Fig.3.)
  - (2) From the both sides of the main body, remove the two screws **B** attaching the front chassis assembly. (See Fig.4.)
  - (3) Release the two joints **d** and two joints **e**. (See Fig.4.)

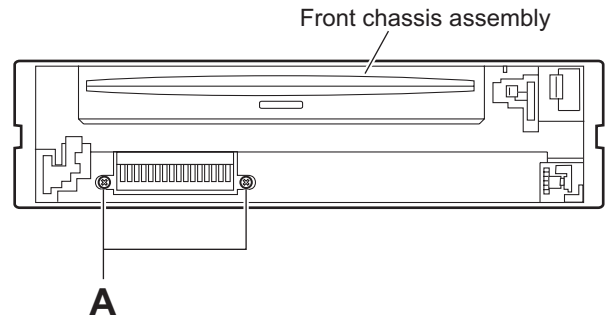


Fig.3

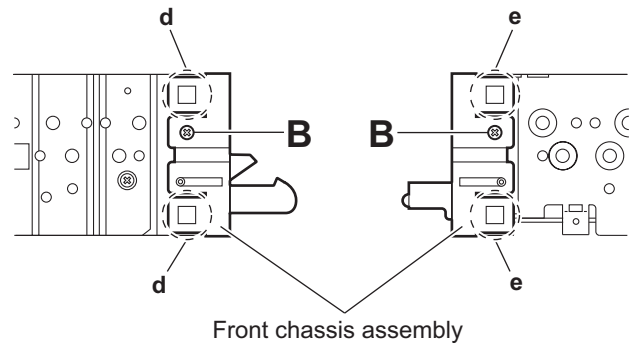


Fig.4

### 3.1.4 Removing the side heat sink (See Fig.5)

#### Reference:

Remove the front panel and front chassis assemblies as required.

From the left side of the main body, remove the two screws **C** and three screws **D** attaching the side heat sink.

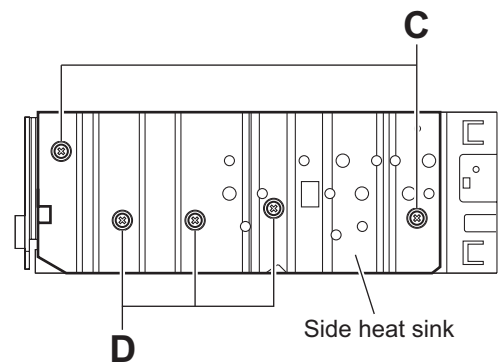


Fig.5

### 3.1.5 Removing the rear bracket (See Fig.6)

- Remove the bottom cover.
  - From the back side of the main body, remove the two screws **E**, two screws **E'**, screw **F**, two screws **G** and three screws **H** attaching the rear bracket.
  - Remove the LINE IN, SUBWOOFER and AUDIO OUT cables from the rear bracket in the direction of the arrow.

#### Reference:

- When attaching the LINE IN and SUBWOOFER cables, insert them in the slots of the rear bracket and hang them on a wire holder.
- When attaching the screws **E'**, attach the cable holders with them.

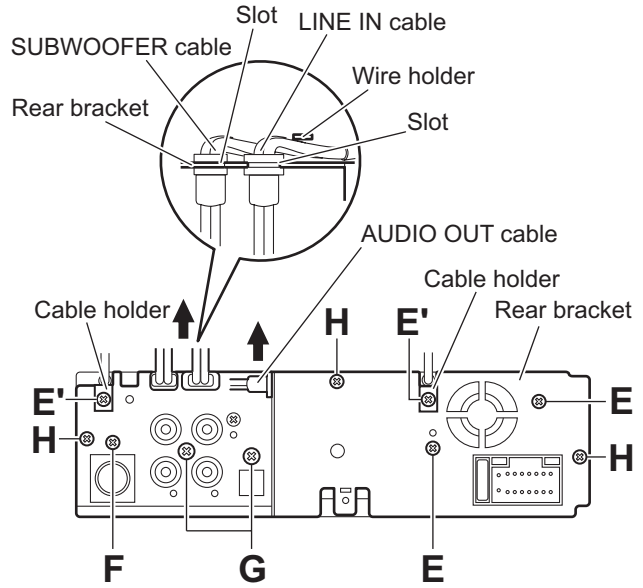


Fig.6

### 3.1.6 Removing the main board (See Figs.6 and 7)

- Remove the front panel assembly, bottom cover, front chassis assembly and side heat sink.

#### Reference:

- Remove the rear bracket as required.
  - From the back side of the main body, remove the three screws **H** attaching the main board. (See Fig.6.)
  - From the bottom side of the main body, remove the three screws **J** attaching the main board. (See Fig.7.)
  - Disconnect the connector [CN961](#) on the main board from the DVD mechanism assembly and take out the main board from the main body. (See Fig.7.)

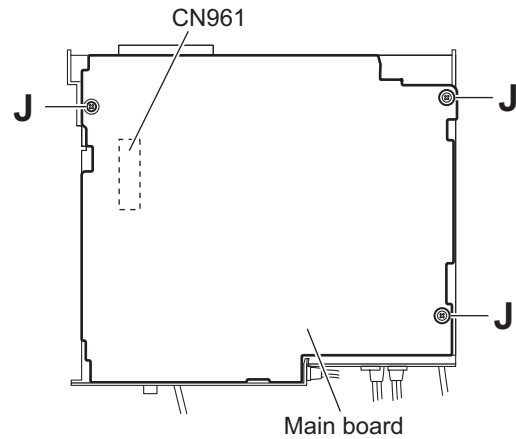


Fig.7

### 3.1.7 Removing the DVD mechanism assembly (See Fig.8)

- Remove the front panel assembly, bottom cover, front chassis assembly, side heat sink and main board.
  - From the inside of the top chassis, remove the three screws **K** attaching the DVD mechanism assembly.
  - Take out the DVD mechanism assembly from the top chassis.

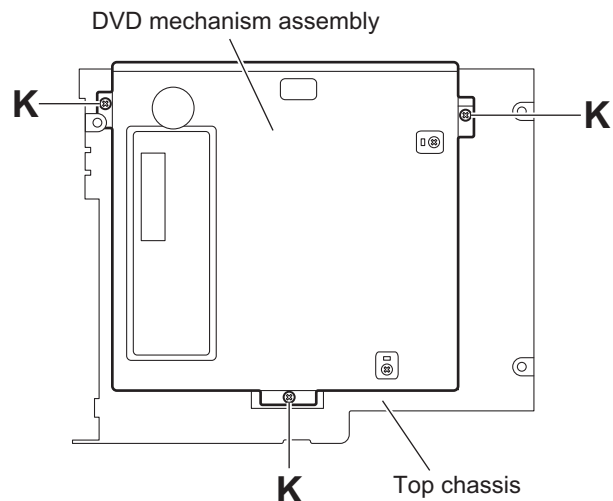


Fig.8



### 3.1.8 Removing the main sub board

(See Figs.9 to 11)

- Remove the front panel assembly, bottom cover, front chassis assembly, side heat sink, main board and DVD mechanism assembly.

- (1) From the top side of the DVD mechanism assembly, remove the two screws **L** attaching the dust cover. (See Fig.9.)
- (2) Remove the dust cover from the DVD mechanism assembly. (See Fig.9.)

**Reference:**

When attaching the dust cover, align the joints **f** in the holes of the dust cover before attaching the screws **L**. (See Fig.9.)

- (3) Release the lock of the connector **CN962** on the main sub board and disconnect the card wire. (See Fig.10.)
- (4) Bend the joint **g** in the direction of the arrow. (See Fig.10.)
- (5) Remove the two screws **M** attaching the main sub board and remove the main sub board from the DVD mechanism assembly. (See Fig.10.)

**Reference:**

- When attaching the main sub board, align the joints **h** in the holes of the main sub board before attaching the screws **M**. (See Fig.10.)
- When the resolution of DVD mechanism assembly is done sequentially, remove the two screws **N** attaching the support bracket. (See Fig.11.)
- Remove the card wire from the connector **CN401** as required. (See Fig.11.)

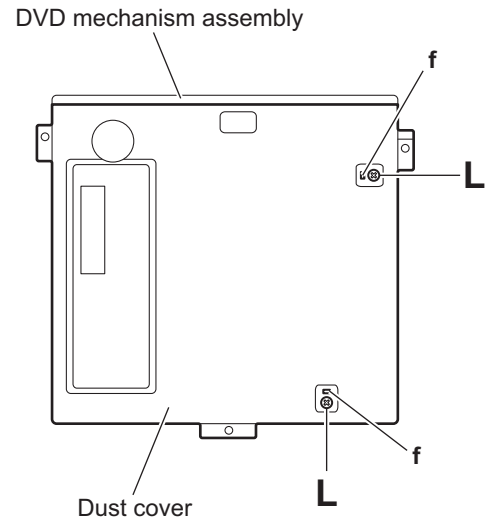


Fig.9

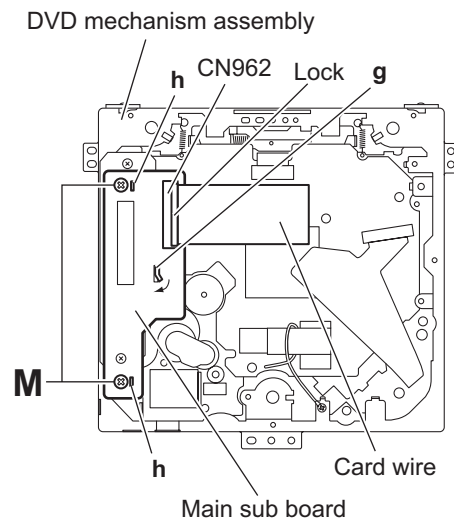


Fig.10

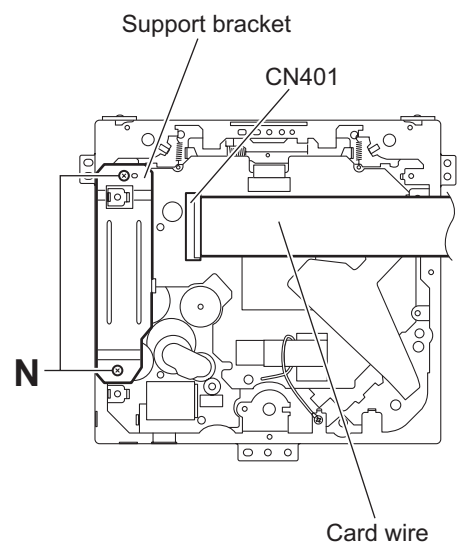


Fig.11

### 3.1.9 Removing the switch board (See Figs. 12 to 14)

- Remove the front panel assembly.
  - From the back side of the front panel assembly, remove the five screws **P** attaching the rear cover. (See Fig.12.)
  - Release the ten joints **i** attaching the rear cover to the front panel assembly. (See Fig.13.)
  - Take out the switch board while lifting the switch board from the front panel assembly little by little. (See Fig.14.)

#### Reference:

Remove the volume knob from the front side of the front panel assembly at the same time.

#### Note:

Do not lose the compression springs when removing the switch board. (See Fig.14.)

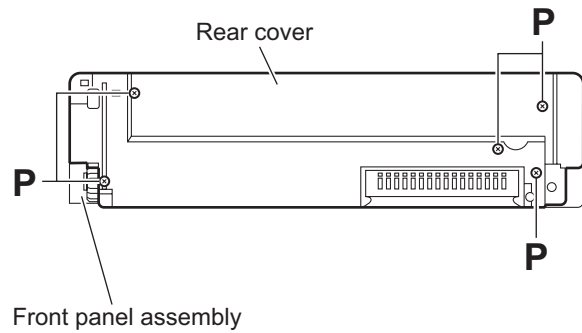


Fig.12

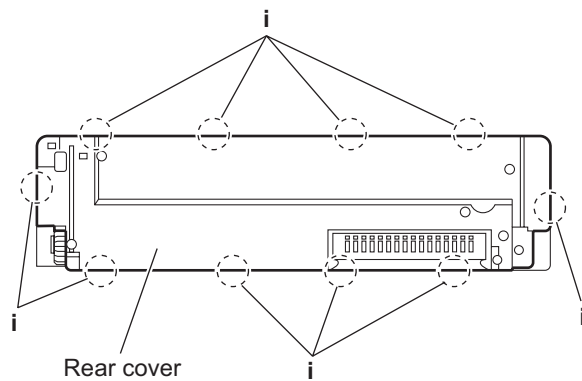


Fig.13

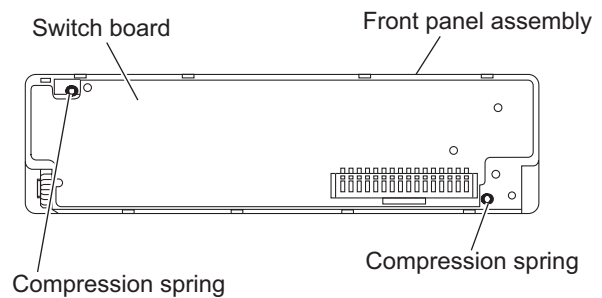


Fig.14

## 3.2 DVD mechanism assembly

### 3.2.1 Removing the mechanism control board (See Fig.1)

#### Caution:

Before disconnecting the flexible wire extending from the DVD pickup, solder the short-circuit point on the flexible wire using a grounding soldering iron. If you do not follow this instruction, the DVD pickup may be damaged.

- (1) Turn over the body, and solder the short-circuit points on the flexible wire extending from the DVD pickup.
- (2) Disconnect the flexible wire from connector [CN101](#) on the mechanism control board.
- (3) Disconnect the card wire from connector [CN201](#) on the mechanism control board.
- (4) Disconnect the flexible wire from connector [CN202](#) on the mechanism control board.
- (5) Unsolder two soldered points **a** on the mechanism control board and remove the wire extending from the feed motor.
- (6) Remove the screw **A** attaching the lug wire.
- (7) Remove the two screws **B** and screw **C** attaching the mechanism control board.

#### Caution:

- As the flexible wire to be connected to [CN101](#), make sure to attach it to the mechanism control board using a double tape.
- After reassembling, unsolder the short-circuit points.

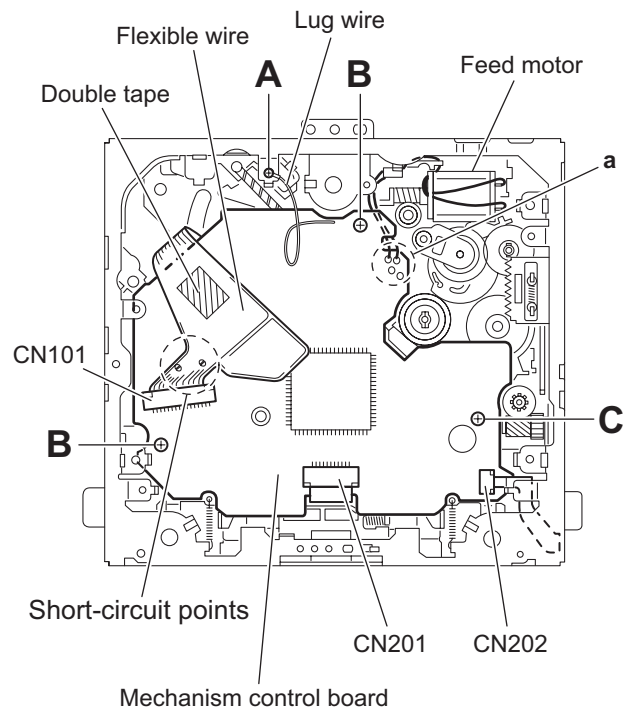


Fig.1

### 3.2.2 Removing the top cover (See Fig.2)

- (1) Remove the two screws **D** attaching the top cover on the back of the body.
- (2) Remove the top cover upward.

#### Reference:

When reassembling, set part **b** of the top cover under the bending part **c** of the chassis frame.

### 3.2.3 Removing the mechanism section (See Fig.2 to 4)

- Remove the top cover.
  - (1) From the bottom of the body, remove the screw **E** attaching the lug wire. (See Fig.2.)
  - (2) Remove the two screws **F** attaching the right and left stoppers on the front side. (See Fig.2.)
  - (3) Remove the two floating springs on the bottom of the body. (See Fig.3.)
  - (4) Move the mechanism section upward and remove from the chassis frame.
 

The three damper springs come off from the dampers.

(See Fig.4.)

#### Caution:

- When reassembling, reattach the damper spring to the damper respectively and insert the three shafts on the bottom of the mechanism to the dampers.
- Before inserting the shaft to the dampers, apply IPA to the hole of damper.

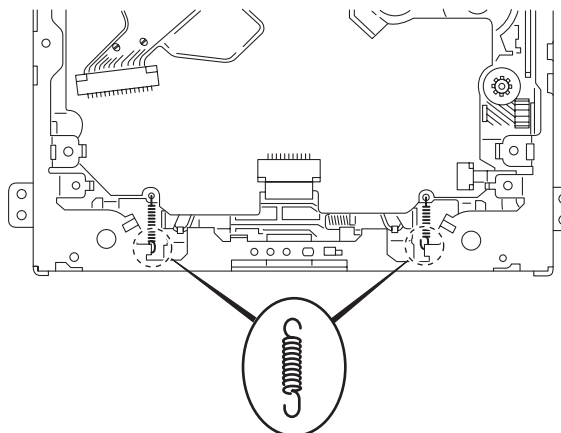


Fig.3

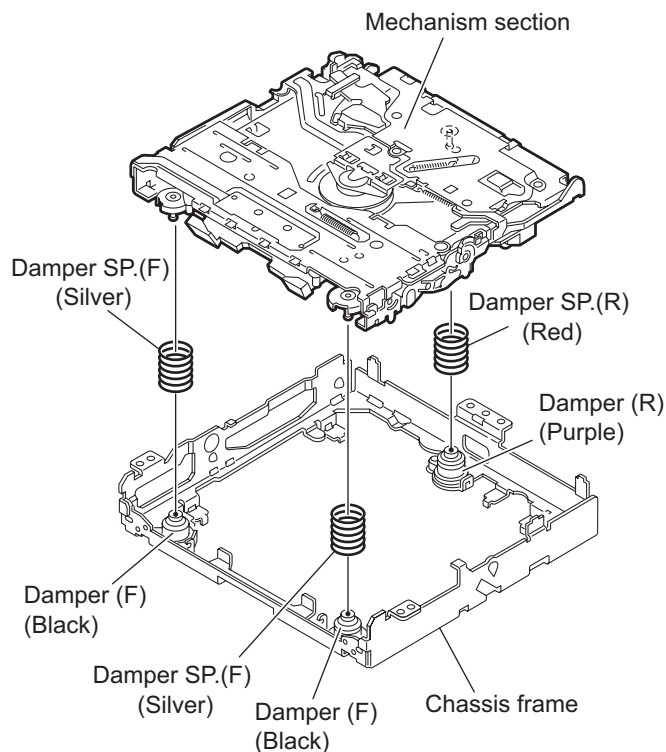


Fig.4

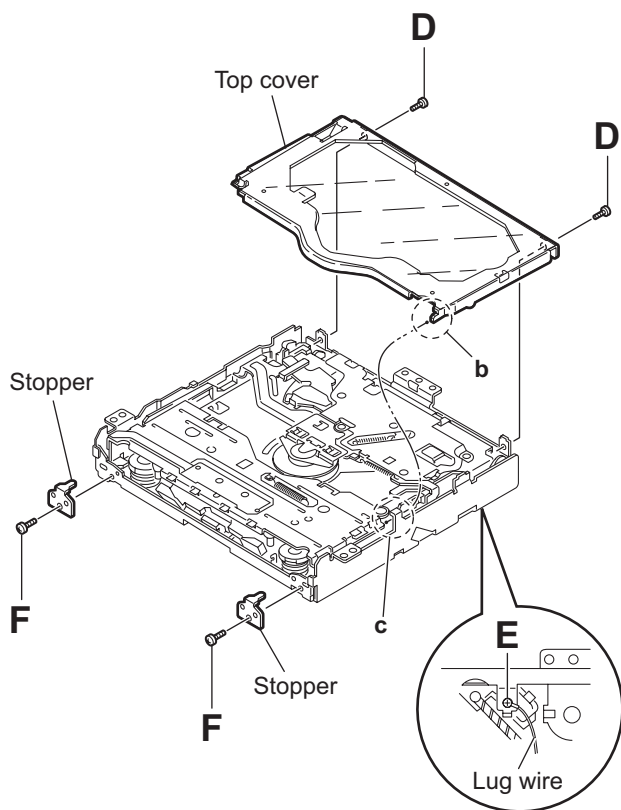


Fig.2

### 3.2.4 Removing the clamper unit (See Fig.5 to 14)

- Remove the top cover and the mechanism section.
  - (1) Remove the clamper2 spring on the bottom of the mechanism section. (See Figs.5.and 6.)
  - (2) Release the part **d** of the clamper spring from the bending part of the chassis base assembly. (See Fig.14.)
  - (3) Move the clamper unit in the direction of the arrow and turn. Release the two joints **e** and **f**, then remove the clamper unit upward. (See Fig.6.)

### 3.2.5 Reattaching the clamper unit (See Fig.5 to 9)

- (1) Attach the clamper spring to the clamper unit. (See Fig.8.)
- (2) Move the clamper unit to set the side joints **e** and **f** to each boss of the chassis base assembly. Make sure that part **g** is inserted to the notch of the chassis base assembly. (See Figs.5 and 9.)
- (3) Move the part **d** of the clamper spring to the outside of the bending part of the chassis base assembly. (See Fig.14.)
- (4) Attach the clamper2 spring to the chassis base assembly. (See Figs.5 and 6.)

#### Caution:

When reattaching, temporarily hook the end of the clamper spring as shown in the figure to make the work easy. (See Fig.8.)

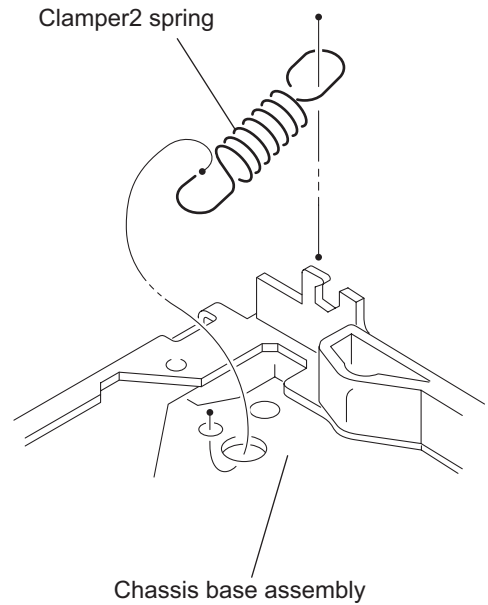


Fig.6

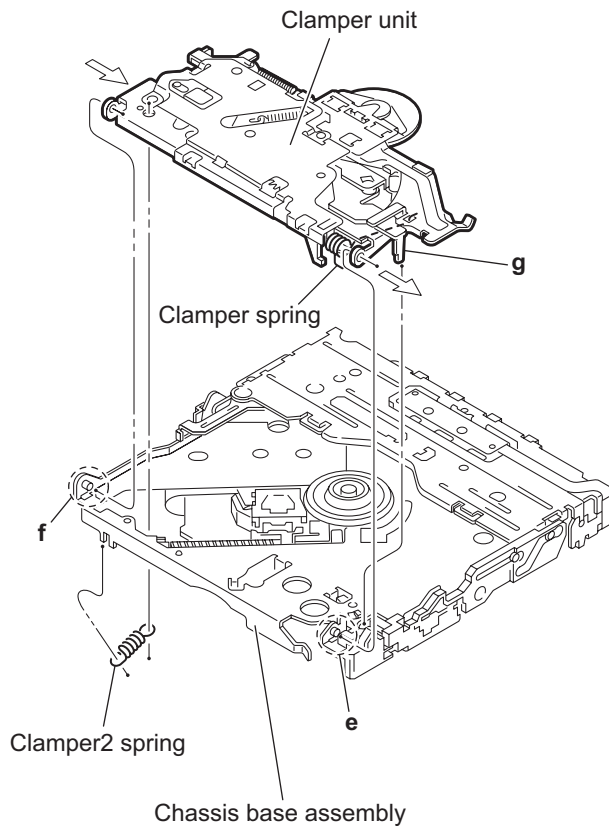


Fig.5

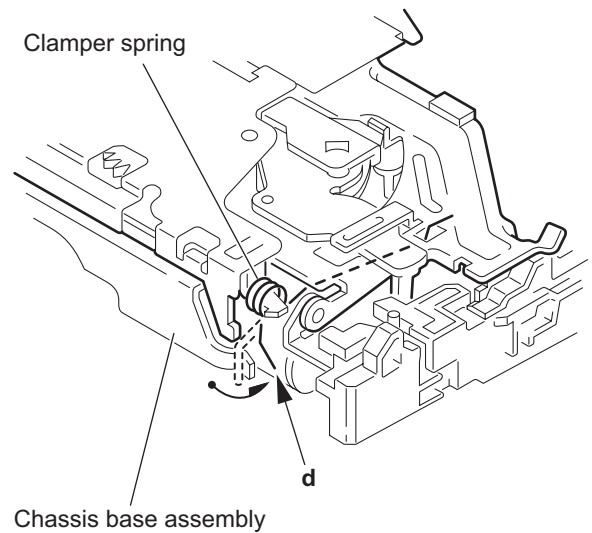


Fig.7

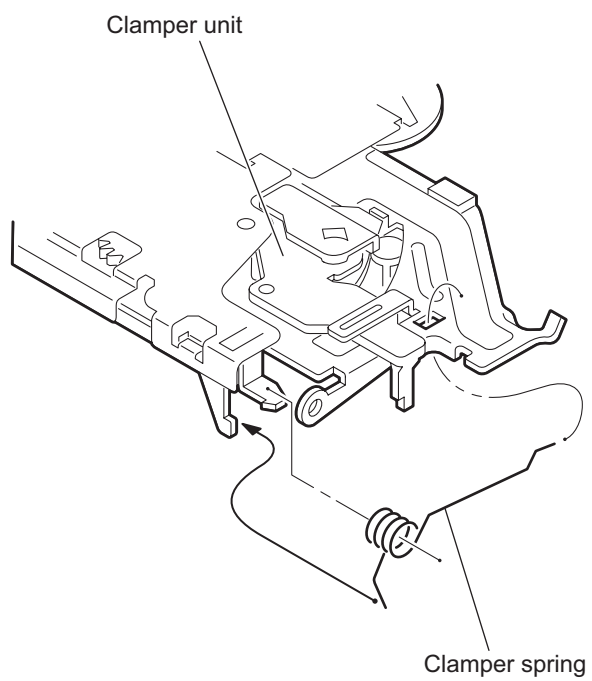


Fig.8

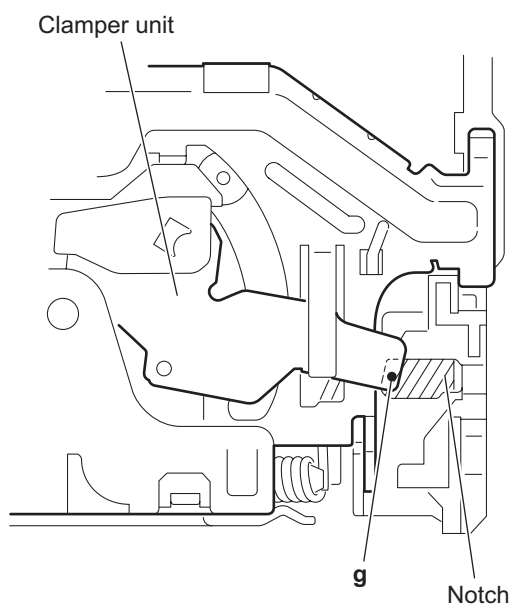


Fig.9

### 3.2.6 Removing the front unit (See Fig.10 to 12)

- Remove the top cover and the mechanism section.
  - (1) Disconnect the flexible wire from connector [CN202](#) on the mechanism control board at the bottom of the body. (See Fig.10.)
  - (2) Remove the screw **G** attaching the front unit on the top of the body. (See Fig.11.)
  - (3) Move the front unit toward the front to release joint **h**, and release two joints **i** and **j** on the right side of the chassis base assembly. Then remove the front unit upward. (See Figs.11 and 12.)
  - (4) Remove the two screws **H** attaching the switch board. (See Fig.12.)

#### Reference:

You can remove the switch board only without removing the front unit.

#### Caution:

When reassembling, attach the flexible wire extending from the switch board using the double tape. (See Figs.10 and 12.)

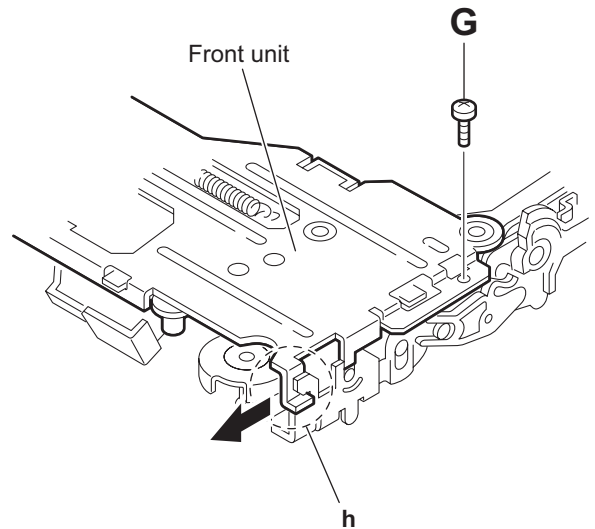


Fig.11

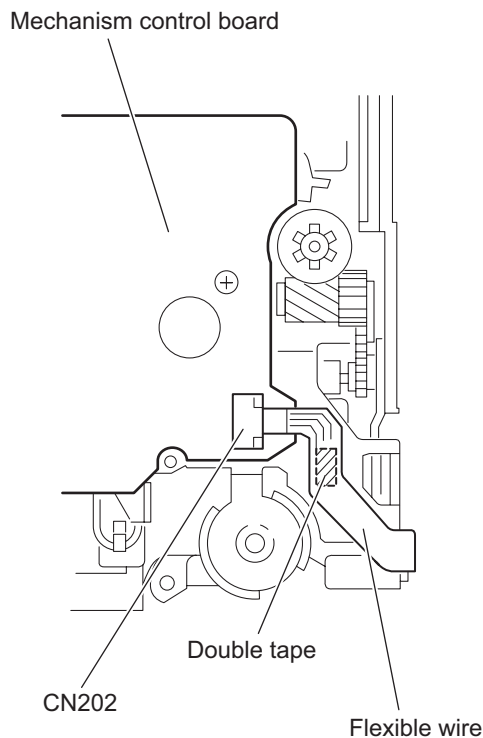


Fig.10

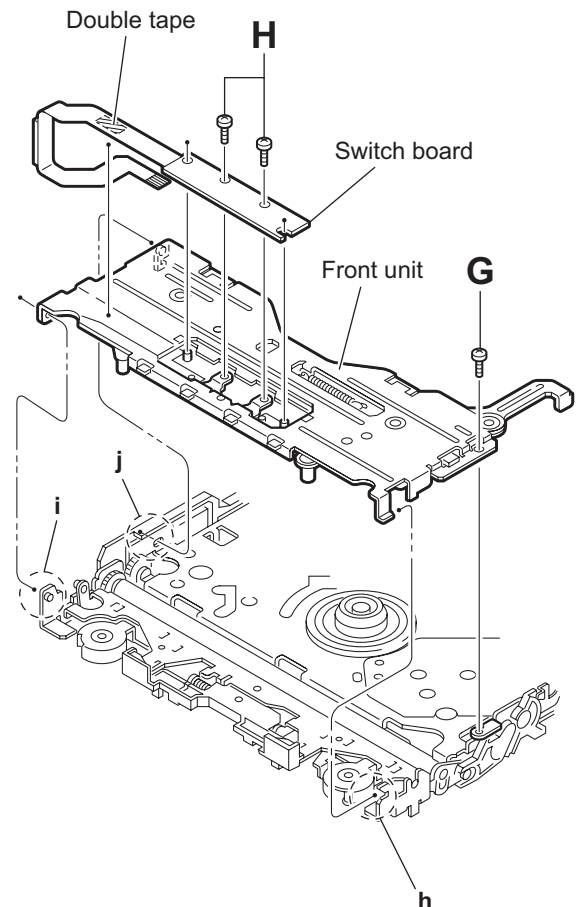


Fig.12

### 3.2.7 Removing the loading arm assembly (See Fig.13 , 14)

- Remove the top cover, the mechanism section and the front unit.
  - (1) From the top of the body, move the loading arm assembly from the front side upward, and release the bosses from the right and left joints **k** and **m** of the chassis base assembly.
  - (2) Release the boss from notch **n** of the connect arm on the right side of the body, and release the boss from notch **p** of the slide cam assembly on the left side.

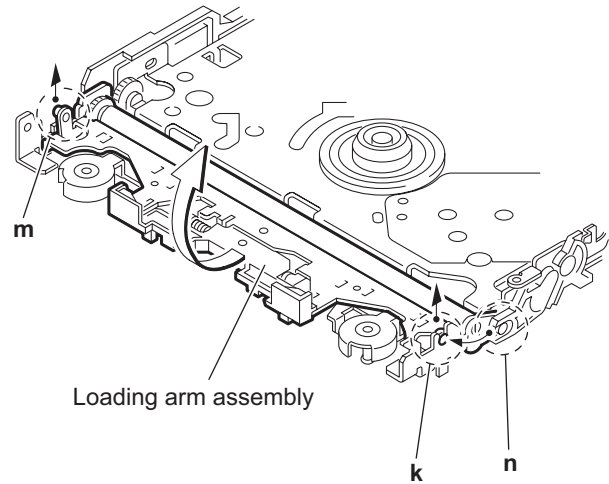


Fig.13

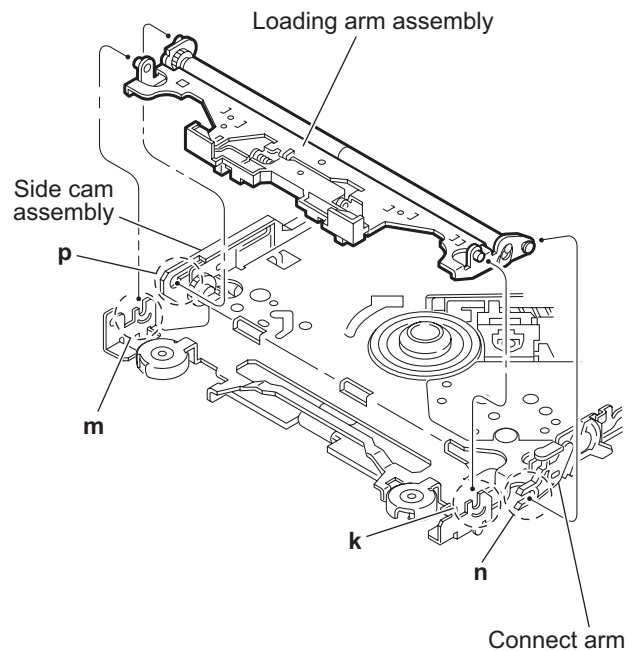


Fig.14



### 3.2.8 Removing the rod (L)(R)/roller assembly (See Fig.15 and 16)

- Remove the top cover, the mechanism section, the front unit and the loading arm assembly.
  - (1) Release the rod (L) and (R) from the joints **q** at the bottom of the loading arm assembly (See Fig.15.)
  - (2) Remove the roller assembly from the loading arm assembly. (See Fig.16.)
  - (3) Remove the two collars and washer from the roller assembly. (See Fig.16.)

#### Caution:

After attaching the loading arm assembly to the roller assembly, attach the rod (L) and (R). Attach the rods to the right and left collars of the roller. (See Fig.15.)

When reattaching the rod (L) and (R) to the loading arm assembly, engage each joint as shown in Fig.15. As joints **q** of the rod (L), let the rod through **q** before reattaching it.

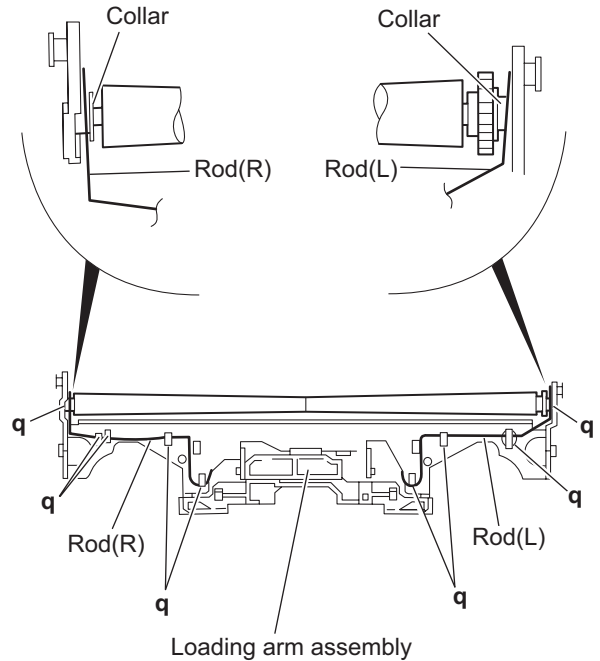


Fig.15

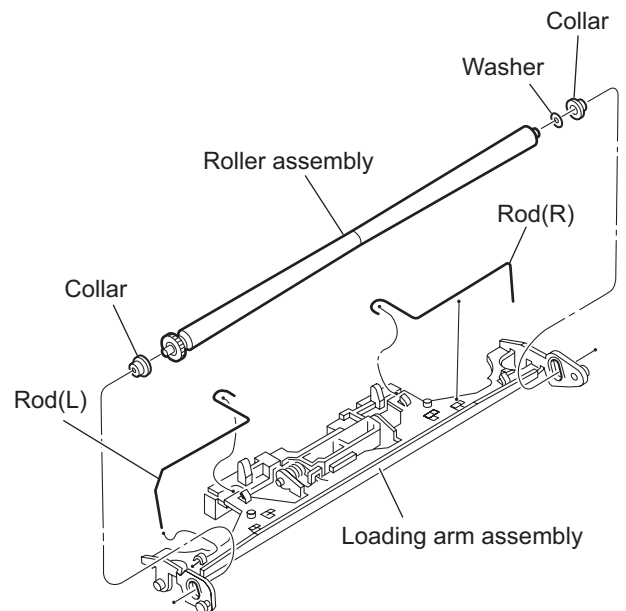


Fig.16

### 3.2.9 Removing the DVD pickup assembly (See Fig.17 to 19)

- Remove the mechanism control board.

- (1) From the bottom of the body, turn the feed gear in the direction of the arrow to move the DVD pickup outwards. (See Fig.17.)
- (2) Remove the screw **J** attaching the thrust spring. (See Fig.17.)
- (3) Remove the DVD pickup assembly upward on the L.S.gear side and release from sub shaft at joint **r**. Move the lead screw of the DVD pickup assembly in the direction of the arrow to release from joint **s**. (See Fig.18.)

#### Caution:

- When releasing the lead screw at joint **s**, the L.S.collar comes off at the end of the lead screw. When reassembling, reattach the L.S.collar to the lead screw and engage joint **s**. (See Fig.18.)
  - When reattaching the L.S.collar, reattach it to the point **s** of the lead screw, and to the rod (M). Make sure that the L.S.collar is set on the rod (M) spring. (See Fig.18.)
- (4) Remove the screw **K** attaching the rack spring/ rack plate on the DVD pickup. (See Fig.19.)
  - (5) Pull out the lead screw. (See Fig.19.)

#### Caution:

Perform adjustment after replacing the pickup.

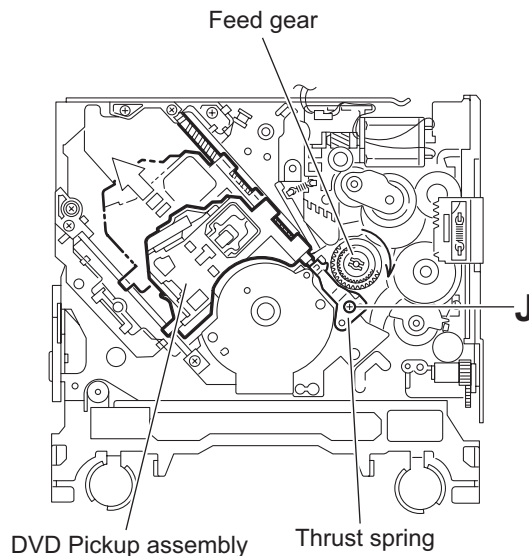


Fig.17

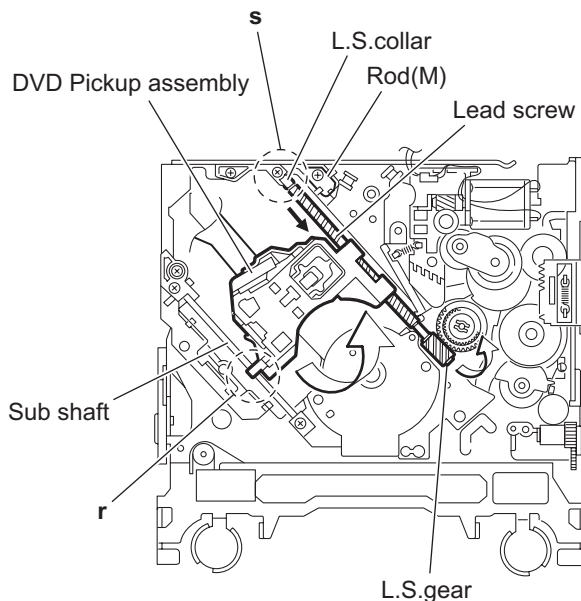


Fig.18

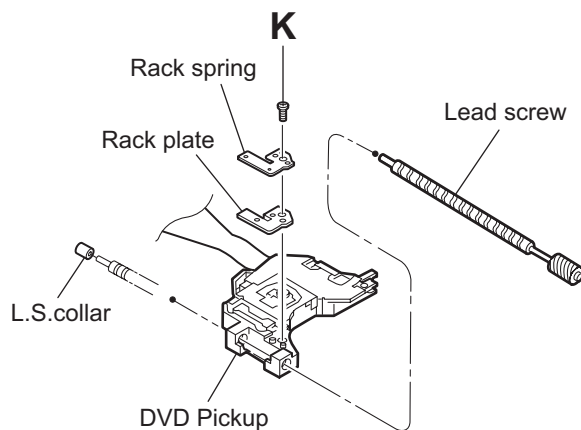


Fig.19

### 3.2.10 Removing the spindle motor (See Fig.20)

- Remove the mechanism control board.  
Remove the two screws **L** attaching the spindle motor on the bottom of the body.

#### Caution:

Perform adjustment when reattaching the spindle motor.

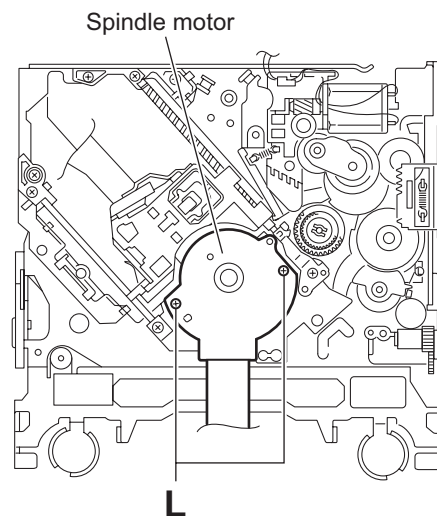


Fig.20

### 3.2.11 Removing the feed motor assembly (See Fig.21 and 22)

- Remove the mechanism control board.
  - (1) Remove the feed TRI. spring on the bottom of the body. (See Fig.21.)
  - (2) Remove the two screws **M** attaching the feed motor assembly. (See Fig.21.)
  - (3) Remove the slit washer from the motor H. assembly and pull out the worm wheel. (See Fig.22.)Remove the two screws **N** attaching the feed motor. (See Fig.22.)

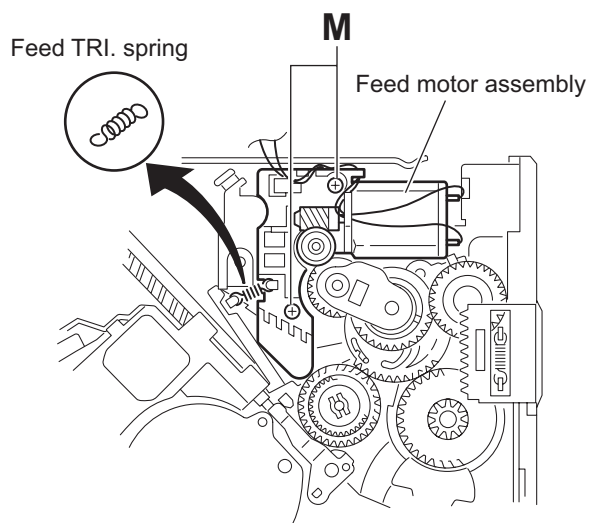


Fig.21

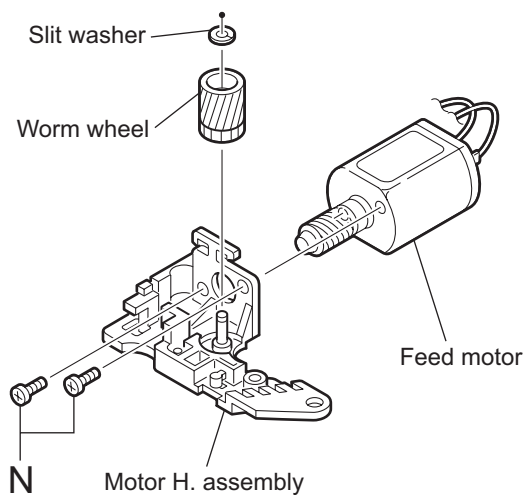


Fig.22

## SECTION 4 ADJUSTMENT

### 4.1 Test instruments required for adjustment

- (1) Digital oscilloscope (100MHz)
- (2) Jitter meter
- (3) Digital tester
- (4) Electric voltmeter
- (5) Tracking offset meter
- (6) Test Disc : VT501 or VT502
- (7) Extension studs : STDV001-3P
- (8) Extension cable : EXTDV002-30P

### 4.2 Standard measuring conditions

Power supply voltage	DC14.4V(11 to 16V)
Load impedance	4Ω(2 Speakers connection)
Line Output	20kΩ

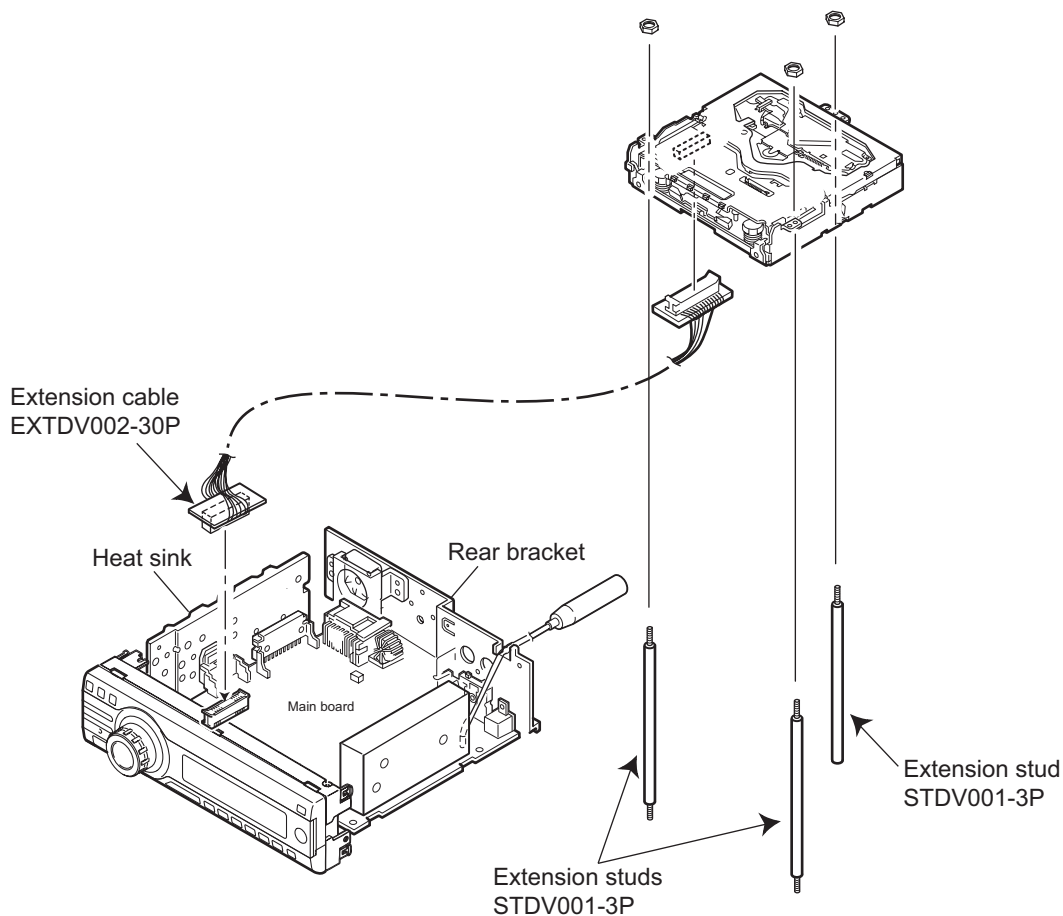
#### Caution:

Be sure to attach the heat sink and rear bracket onto the power amplifier IC and regulator IC respectively, before supply the power. If voltage is applied without attaching these parts, the power amplifier IC and regulator IC will be destroyed by heat.

### 4.3 Connection method

#### Connection procedure:

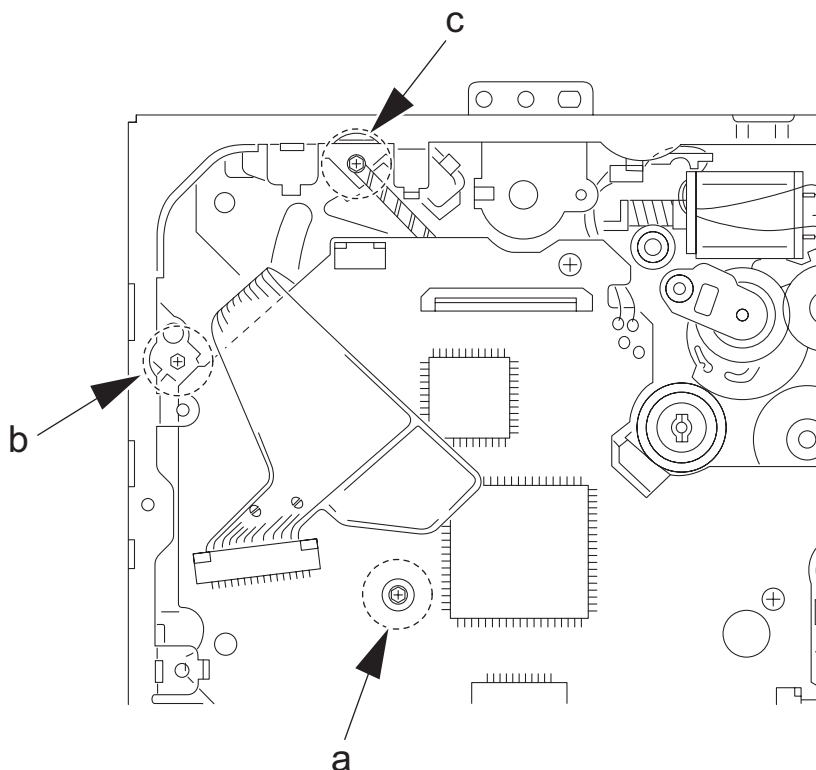
- (1) Attach the front chassis assembly to the main board.
- (2) Connect the front panel assembly to the main board.
- (3) Attach the heat sink and rear bracket to the main board.
- (4) Attach the extension studs to the DVD mechanism assembly.
- (5) Connect the DVD mechanism assembly and the main board with a extension cable.



After replacing the pickup, set the unit in the service mode to display a jitter value on the LCD. Confirm that the jitter value measured with a jitter meter is within 12% of the jitter value displayed on the LCD. If it is within 12%, then adjustment is not necessary. Please note that a jitter value displayed on the LCD is hex data. Refer to the corresponding decimal notation value using the Jitter Conversion Table and confirm it with the measured value.

Fix the screws "a", "b" and "c" with screw lock paint.

If the measured jitter value is outside the 12% tolerance range, perform the following adjustments.



Jitter value adjustment procedure (Pickup horizontal level adjustment relative to the DVD recording surface)  
 (For the adjustment tool use a 3 mm wrench and not a screwdriver, this procedure will make the adjustment easier.)

3 mm wrench



- (1) Set the unit to the service mode and display a jitter value (hex data) on the LCD.
- (2) Turn each of the screws **a**, **b** and **c**, by a half-turn per step, in the direction that reduces the jitter value in order to minimize it .  
 (Do not turn a screw more than a half turn at a time, but adjust the screws in the cycle of **a** → **b** → **c** → **d** → **a**.)
- (3) After completing the adjustment, secure the screws with screw lock paint.

#### 4.4 Jitter value conversion table

Load the test DVD and set the unit to the service mode. A jitter value converted to the hex value is displayed on the LCD. Refer to the corresponding decimal notation value shown in the following Jitter Conversion Table.

The adjustment is OK if the jitter value measured with a jitter meter is within 12% of the jitter value displayed on the LCD.

If the measured jitter value is outside the 12% tolerance range, adjust it to minimize the difference between the measured value and the displayed value.

Indicated on the LCD	JIT OUT	Jitter value (%)		Indicated on the LCD	JIT OUT	Jitter value (%)		Indicated on the LCD	JIT OUT	Jitter value (%)	
20A7	1957.98	4.7	3818	18C2	1856.9	8.5	3A11	10DC	1755.82	12.3	3C0A
2072	1955.32	4.8	3825	188C	1854.24	8.6	3A1E	10A7	1753.16	12.4	3C18
203D	1952.66	4.9	3832	1857	1851.58	8.7	3A2C	1072	1750.5	12.5	3C25
2008	1950	5.0	3840	1822	1848.92	8.8	3A39	103C	1747.84	12.6	3C32
1FD2	1947.34	5.1	384D	17ED	1846.26	8.9	3A46	1007	1745.18	12.7	3C40
1F9D	1944.68	5.2	385A	17B8	1843.6	9.0	3A54	FD2	1742.52	12.8	3C4D
1F68	1942.02	5.3	3867	1782	1840.94	9.1	3A61	F9D	1739.86	12.9	3C5A
1F33	1939.36	5.4	3875	174D	1838.28	9.2	3A6E	F68	1737.2	13.0	3C68
1EFE	1936.7	5.5	3882	1718	1835.62	9.3	3A7B	F32	1734.54	13.1	3C75
1EC8	1934.04	5.6	388F	16E3	1832.96	9.4	3A89	EFD	1731.88	13.2	3C82
1E93	1931.38	5.7	389D	16AE	1830.3	9.5	3A96	EC8	1729.22	13.3	3C8F
1E5E	1928.72	5.8	38AA	1678	1827.64	9.6	3AA3	E93	1726.56	13.4	3C9D
1E29	1926.06	5.9	38B7	1643	1824.98	9.7	3AB1	E5E	1723.9	13.5	3CAA
1DF4	1923.4	6.0	38C5	160E	1822.32	9.8	3ABE	E28	1721.24	13.6	3CB7
1DBE	1920.74	6.1	38D2	15D9	1819.66	9.9	3ACB	DF3	1718.58	13.7	3CC5
1D89	1918.08	6.2	38DF	15A4	1817	10.0	3AD9	DBE	1715.92	13.8	3CD2
1D54	1915.42	6.3	38EC	156E	1814.34	10.1	3AE6	D89	1713.26	13.9	3CDF
1D1F	1912.76	6.4	38FA	1539	1811.68	10.2	3AF3	D54	1710.6	14.0	3CED
1CEA	1910.1	6.5	3907	1504	1809.02	10.3	3B00	D1E	1707.94	14.1	3CFA
1CB4	1907.44	6.6	3914	14CF	1806.36	10.4	3B0E	CE9	1705.28	14.2	3D07
1C7F	1904.78	6.7	3922	149A	1803.7	10.5	3B1B	CB4	1702.62	14.3	3D14
1C4A	1902.12	6.8	392F	1464	1801.04	10.6	3B28	C7F	1699.96	14.4	3D22
1C15	1899.46	6.9	393C	142F	1798.38	10.7	3B36	C4A	1697.3	14.5	3D2F
1BE0	1896.8	7.0	394A	13FA	1795.72	10.8	3B43	C14	1694.64	14.6	3D3C
1BAA	1894.14	7.1	3957	13C5	1793.06	10.9	3B50	BDF	1691.98	14.7	3D4A
1B75	1891.48	7.2	3964	1390	1790.4	11.0	3B5E	BAA	1689.32	14.8	3D57
1B40	1888.82	7.3	3971	135A	1787.74	11.1	3B6B	B75	1686.66	14.9	3D64
1B0B	1886.16	7.4	397F	1325	1785.08	11.2	3B78	B40	1684	15.0	3D72
1AD6	1883.5	7.5	398C	12F0	1782.42	11.3	3B85	B0A	1681.34	15.1	3D7F
1AA0	1880.84	7.6	3999	12BB	1779.76	11.4	3B93	AD5	1678.68	15.2	3D8C
1A6B	1878.18	7.7	39A7	1286	1777.1	11.5	3BA0	AA0	1676.02	15.3	3D99
1A36	1875.52	7.8	39B4	1250	1774.44	11.6	3BAD	A6B	1673.36	15.4	3DA7
1A01	1872.86	7.9	39C1	121B	1771.78	11.7	3BBB	A36	1670.7	15.5	3DB4
19CC	1870.2	8.0	39CF	11E6	1769.12	11.8	3BC8	A00	1668.04	15.6	3DC1
1996	1867.54	8.1	39DC	11B1	1766.46	11.9	3BD5	9CB	1665.38	15.7	3DCF
1961	1864.88	8.2	39E9	117C	1763.8	12.0	3BE3	996	1662.72	15.8	3DDC
192C	1862.22	8.3	39F6	1146	1761.14	12.1	3BF0	961	1660.06	15.9	3DE9
18F7	1859.56	8.4	3A04	1111	1758.48	12.2	3BFD	92C	1657.4	16.0	3DF7

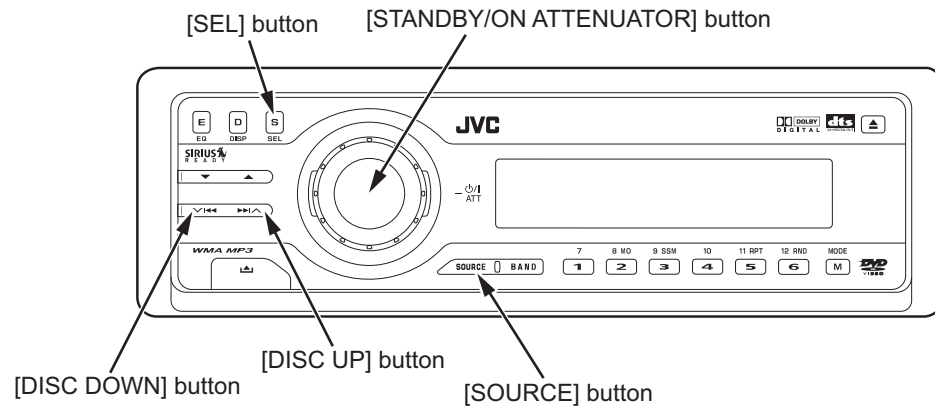
## 4.5 Service mode

### 4.5.1 Standard input/output conditions

Power supply voltage DC14.4V(11 to 16V)  
Load impedance 4Ω(2 Speakers connection)  
Line Output 20kΩ

### 4.5.2 Service mode setting procedure

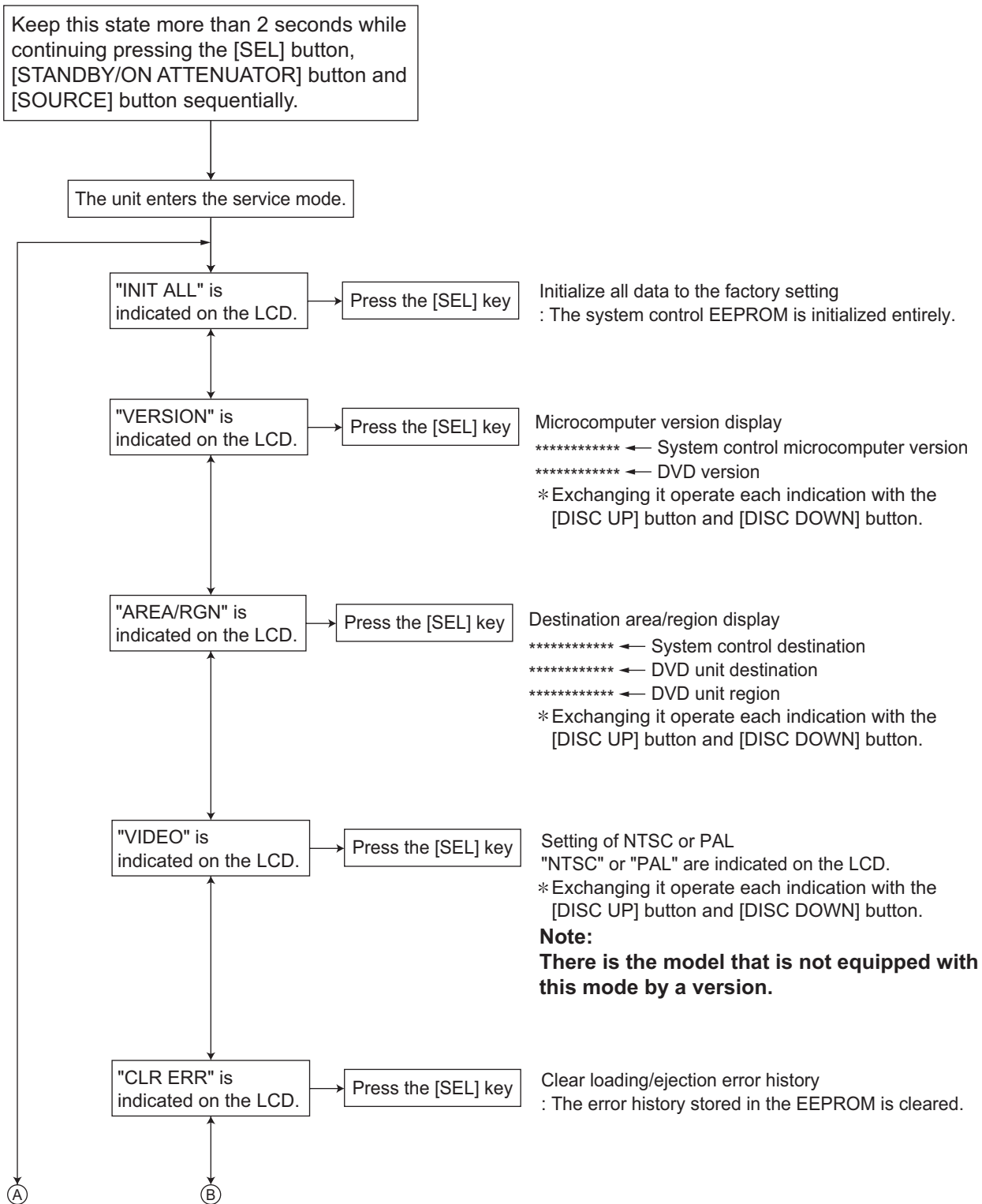
(The DVD does not need to be loaded before starting the following procedure.)



- (1) Press a [STANDBY/ON ATTENUATOR] button on a main unit and switch it on.
- (2) Keep this state more than 2 seconds while continuing pressing the [SEL] button, [STANDBY/ON ATTENUATOR] button and [SOURCE] button sequentially.
- (3) This unit is set by a service mode.

\*Exchanging it operate a menu of a service mode with the [DISC UP] button and [DISC DOWN] button.  
Operate choice of a menu with a [SEL] button.

### 4.5.3 Operation procedures





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"CD ERROR" is indicated on the LCD.

Press the [SEL] key

Read loading and ejection error history : The error history saved in the system control is read and displayed.

TOT-xxxx : Total error count.

Total error count

(A figure between 0 and 9999 is displayed. 10000 or more is also displayed as 9999.)

Enyyzzzz : Latest three error codes.

Detailed error code

Error code

Counter

Onyyzzzz : First five error codes

Detailed error code

Error code

Counter

\* Exchanging it operate each indication with the [DISC UP] button and [DISC DOWN] button.

### Error code (1 byte)

First byte	[01] Eject error
	[09] Loading error

### Detailed error codes (2 bytes)

\* Displayed with loading/ejection errors only.

First byte	Higher 4 bits . . . Route No. (Process of error occurrence) → Refer to charts 1.1 and 1.2. Lower 4 bits . . . Error type [1] Time out [2] Switch status error [3] Swinging error
Second byte	bit7 . . . Disc type (0: 12 cm. 1: 8 cm) bit6,5 . . . Fixed at 0 bit4 . . . SW1 status bit3 . . . SW2 status bit2 . . . SW3 status bit1 . . . SW4 status bit0 . . . REST SW status

(Example) When a switch status error occurs during loading route 3 and the switch status is L/L/H/H/H (00111B = 07H), the error code and detailed error code become: [09 3207].

Route No. (EJECT route No.)	SW1/2/3/4	[Rest SW]	Loading	Eject	Reload
-	1,1,1,1	[0]	No Disc	No Disc	Disc push in
1(2)	0,1,1,1	[0]	Disc insert detection	↑	
1(2)	0,0,1,1	[0]	↓	Eject completion	↘
2(2)	0,0,0,1	[0]		↑	Reload start
2(2)	0,0,1,1	[0]			↓
2(2)	0,1,1,1	[0]			
2(2)	1,1,1,1	[0]			
3(1)	1,1,1,0	[0]			
3(1)	1,1,1,0	[1]	Load completion	Eject start	Load completion

Chart 1.1 12cm Disc switch status transition

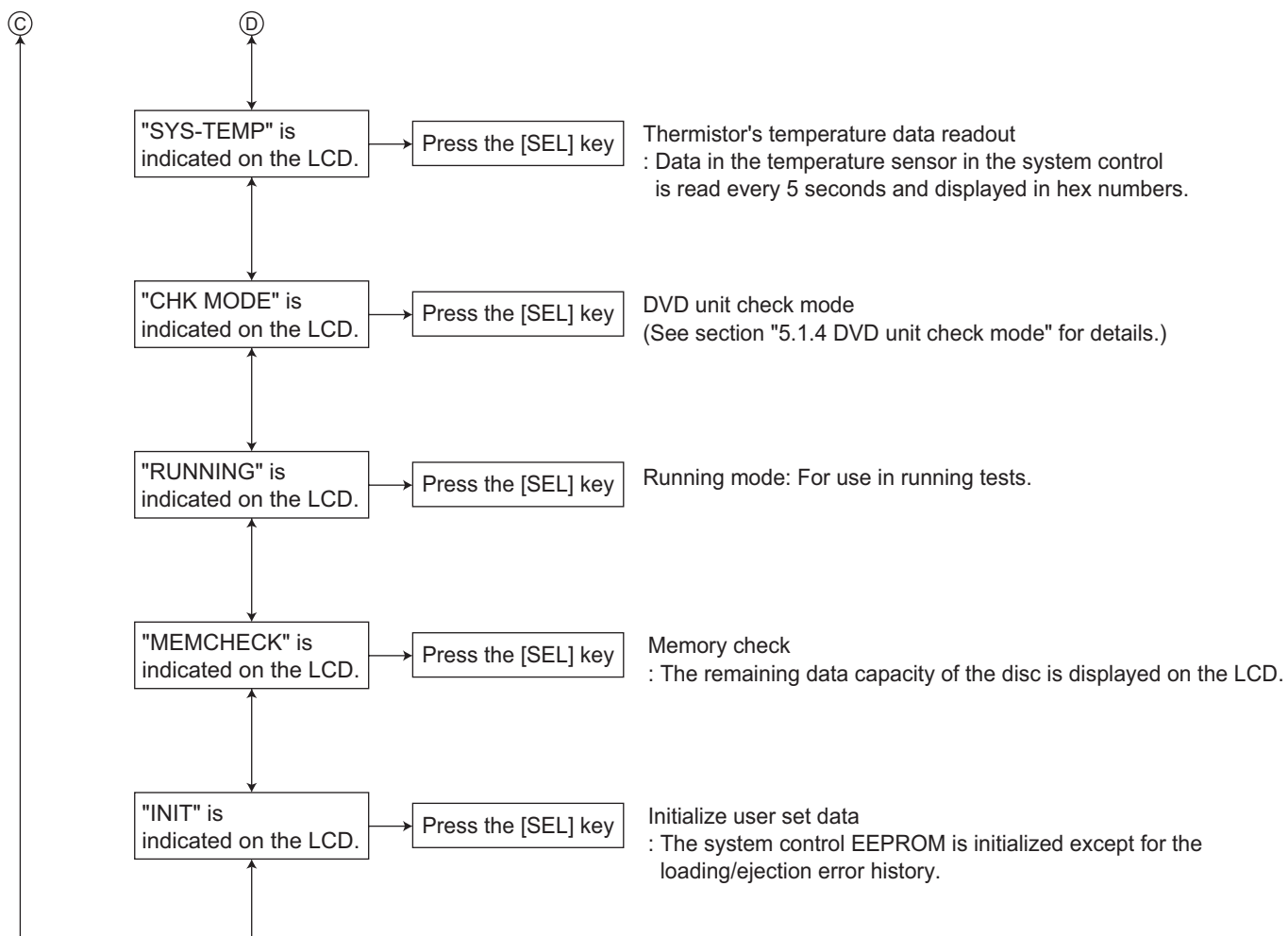
Route No. (EJECT route No.)	SW1/2/3/4	[Rest SW]	Loading*	Eject	Reload
-	1,1,1,1	[0]	No Disc	No Disc	Disc push in
1(2)	0,1,1,1	[0]	Disc insert detection	↑	
1(2)	0,0,1,1	[0]	↓	Eject completion	↘
2(2)	0,0,1,1	[0]		↑	Reload start
2(2)	0,1,1,1	[0]			↓
2(2)	1,1,1,1	[0]			
3(1)	1,1,1,0	[0]			
3(1)	1,1,1,0	[1]	Load completion	Eject start	Load completion

\* Transition in the center loading (Similar to 12cm in the side loading)

Chart 1.2 8cm Disc switch status transition

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#### 4.5.4 DVD unit check mode

Change LCD indication with a [FF ►►] button and a [REW ◄◄] button.

##### Check item list

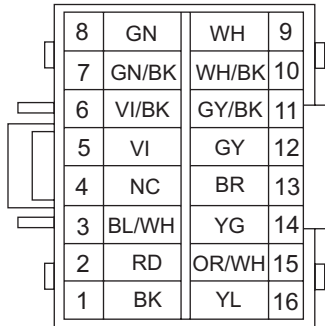
No.	A/D key	DVD unit operation	Example of LCD indication	Indication contents
1	[1]	Start at normal speed (After start, it is measured JITTER on the internal position)	NORMPLAY CUR **** JIT ****	Laser current value Jitter value
2	[2]	Tracking off on the outermost position of CD	EF-BAL OUTRKOFF	For EF phase error
3	[3]	Tracking off on the innermost position of CD	EF-BAL INTRKOFF	For EF phase error
4	[4]	CD_LD lights and laser current is displayed	CDLD ON CUR **** JIT ****	Laser current value Jitter value
5	[5]	DVD_LD lights and laser current is displayed	DVDLD ON CUR **** JIT ****	Laser current value Jitter value
6	[6]	DVD x1 jitter measuring mode (for use in mechanism measurement)	DVD JITR CUR **** JIT ****	Laser current value Jitter value
7	[DISP]	Indication of EEPROM contents	ROM DATA ADDR **** DATA ****	EEPROM address EEPROM contents
8	[SOURCE]	Initialization of EEPROM contents	ROMCLEAR	
9	[SEL]	Indication of temperature	JD4-TEMP TEM ****	Temperature
10	[MODE]	Search & jitter measurement to an appointed position of DVD	DVD-DL PLC **** JIT ****	(Position measured with VT-501) Jitter value
11	[BAND]	Setting of MONITOR terminal	MONITOR M1 **** M2 ****	
12	[DISC UP ▲]	DVDx1 double speed start (After start, it is measured JITTER on the internal position)	PLAY CUR **** JIT ****	Laser current value Jitter value
13	[DISC DW ▼]	Disc stopped & LD-OFF	STOP	
14	[EJECT]	OPEN	DSC OPEN	

- Note
- Press key [1] of No.1 before an item in which the No.2 or 3 key is pressed.
  - Press key [1] of No.1 or key [12] of No.12 before an item in which the No. 10 key is pressed and confirm the indication of jitter value on the LCD.
  - No.6 starts only a DVD1 layer disk. Even other disks start DVD1 layer.
  - When No.1 and No.12 are pushed after jitter indication, a focus jump is executed. (only DVD2 layer)
  - Stop a disk before OPEN, CLOSE by all means. (OPEN and CLOSE are not executed in a disk turn.)
  - The check mode can be exited either by pressing the [POWER] key or by resetting the unit.

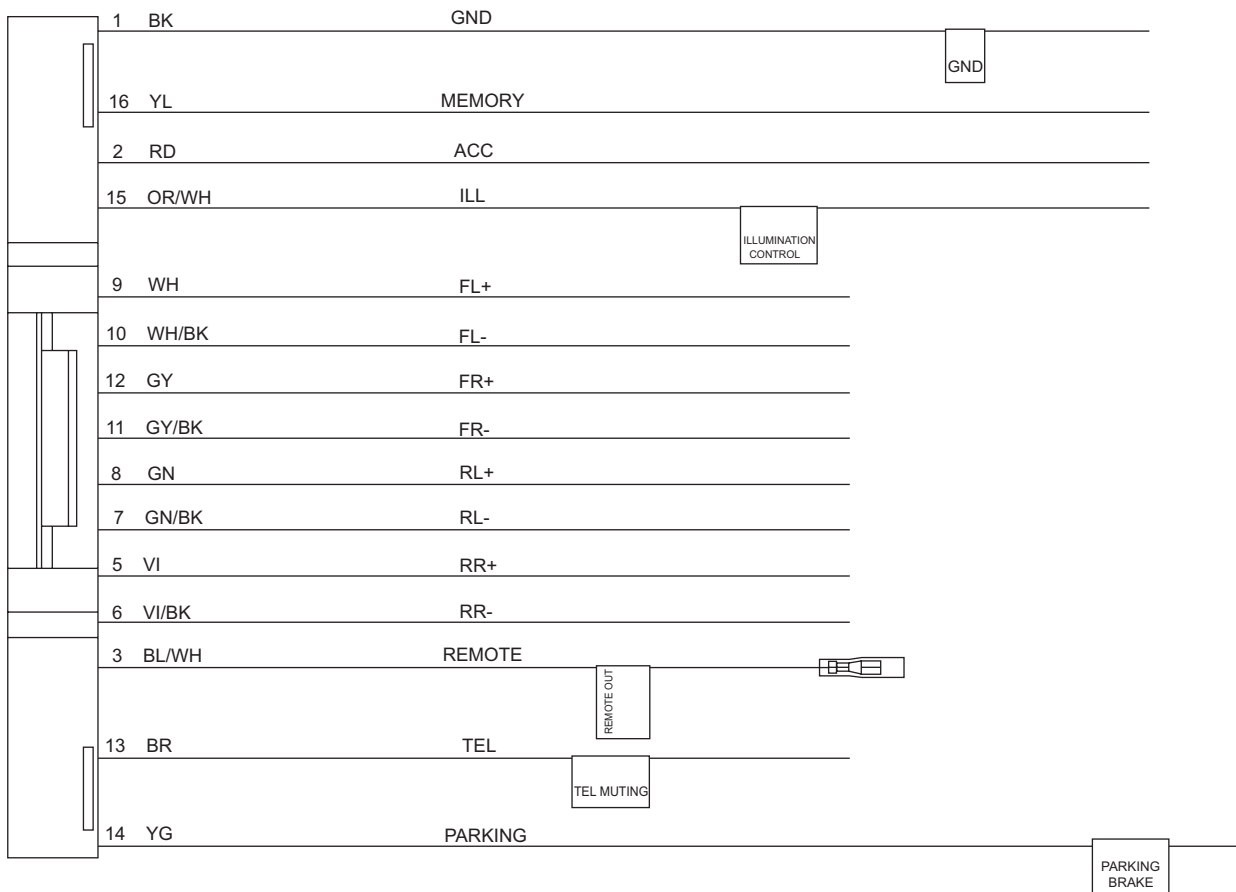
## SECTION 5

### TROUBLESHOOTING

#### 5.1 16 PIN CORD DIAGRAM



BK	Black	GN	Green
RD	Red	VI	Violet
BL	Blue	GY	Gray
WH	White	YL	Yellow
BR	Brown	YG	Yellow Green
OR	Orange		



RR	Rear Right	ACC	ACC Line
FR	Front Right	TEL	Telephone Muting
FL	Front Left	GND	Ground
RL	Rear Left	MEMORY	Memory Backup Battery+
REMOTE	Remote	PARKING	Parking Brake
ILL	Illuminations Control		





Victor Company of Japan, Limited  
AV & MULTIMEDIA COMPANY CAR ELECTRONICS CATEGORY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.MA153)



Printed in Japan  
VPT

# JVC

# SCHEMATIC DIAGRAMS

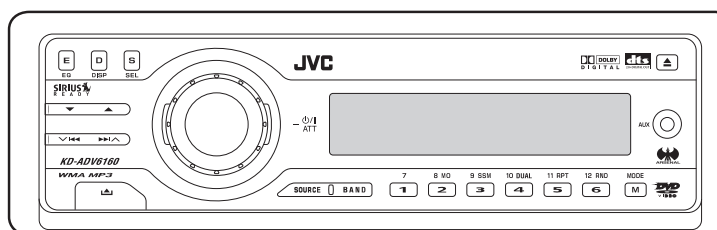
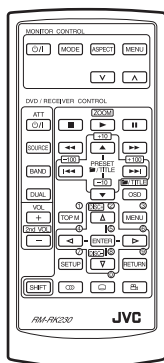
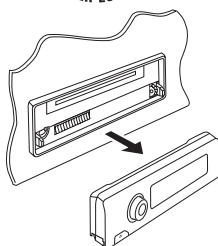
## DVD/CD RECEIVER

### KD-ADV6160

CD-ROM No.SML200502

Area suffix

J ----- Northern America



**WMA  
MP3**

**SIRIUS  
READY**

**DOLBY  
DIGITAL**

**dts  
2.0+DIGITAL OUT**

**DVD  
VIDEO**

**COMPACT  
disc  
DIGITAL VIDEO**

### Contents

Block diagram .....	2-1
Standard schematic diagrams .....	2-3
Printed circuit boards .....	2-9 to 13

# Safety precaution

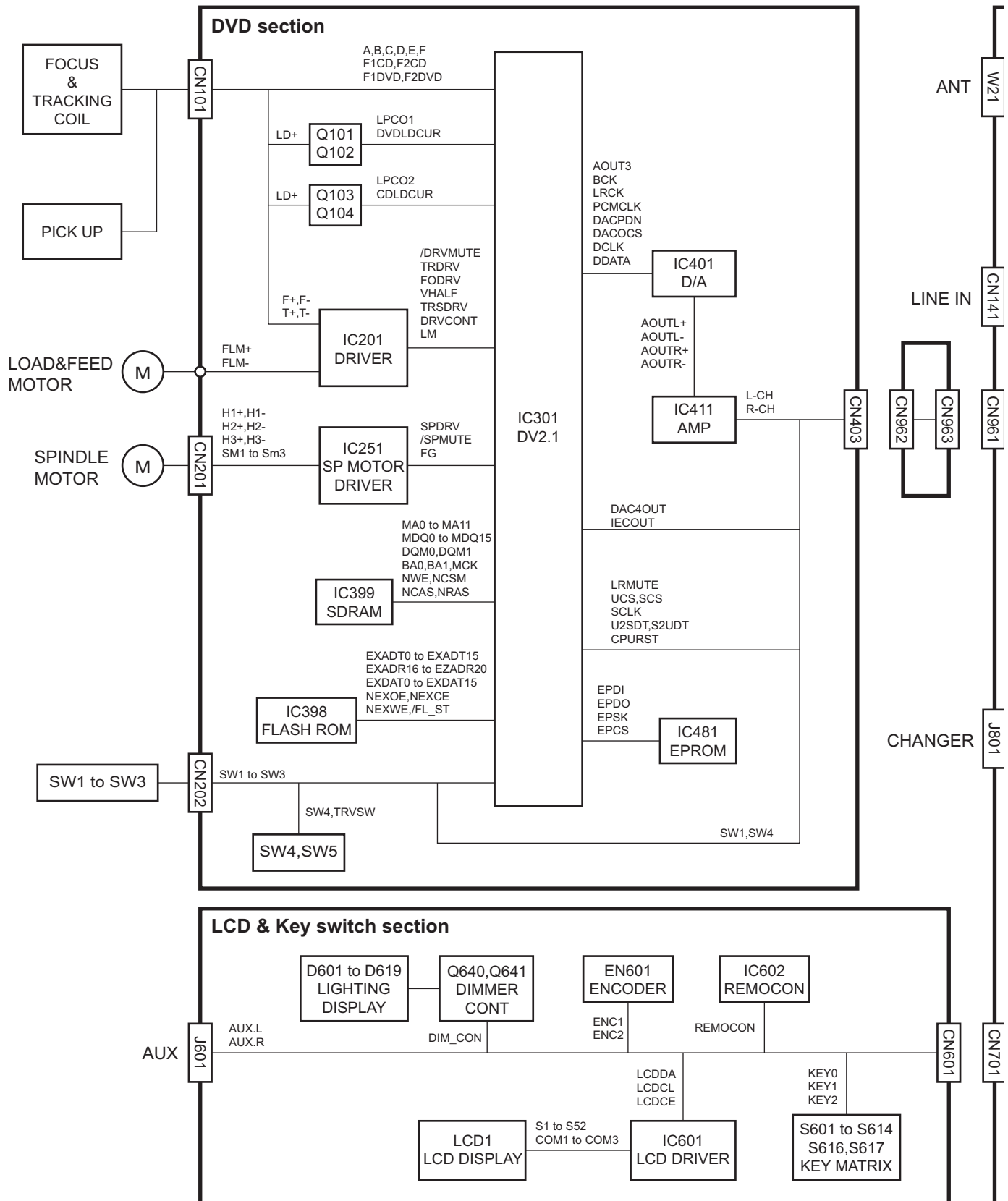
 **CAUTION** Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

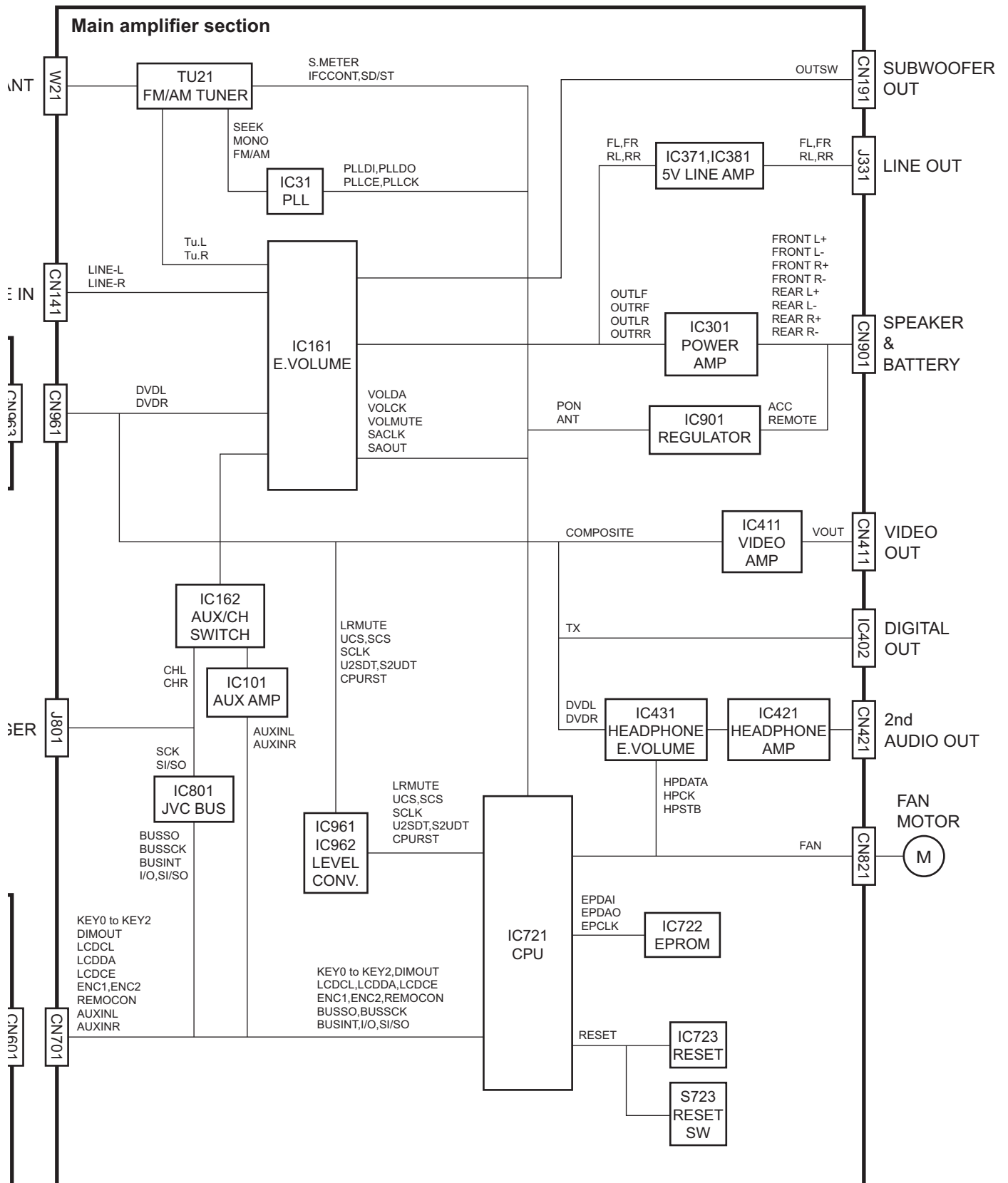
 **CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.



< MEMO >

# Block diagram

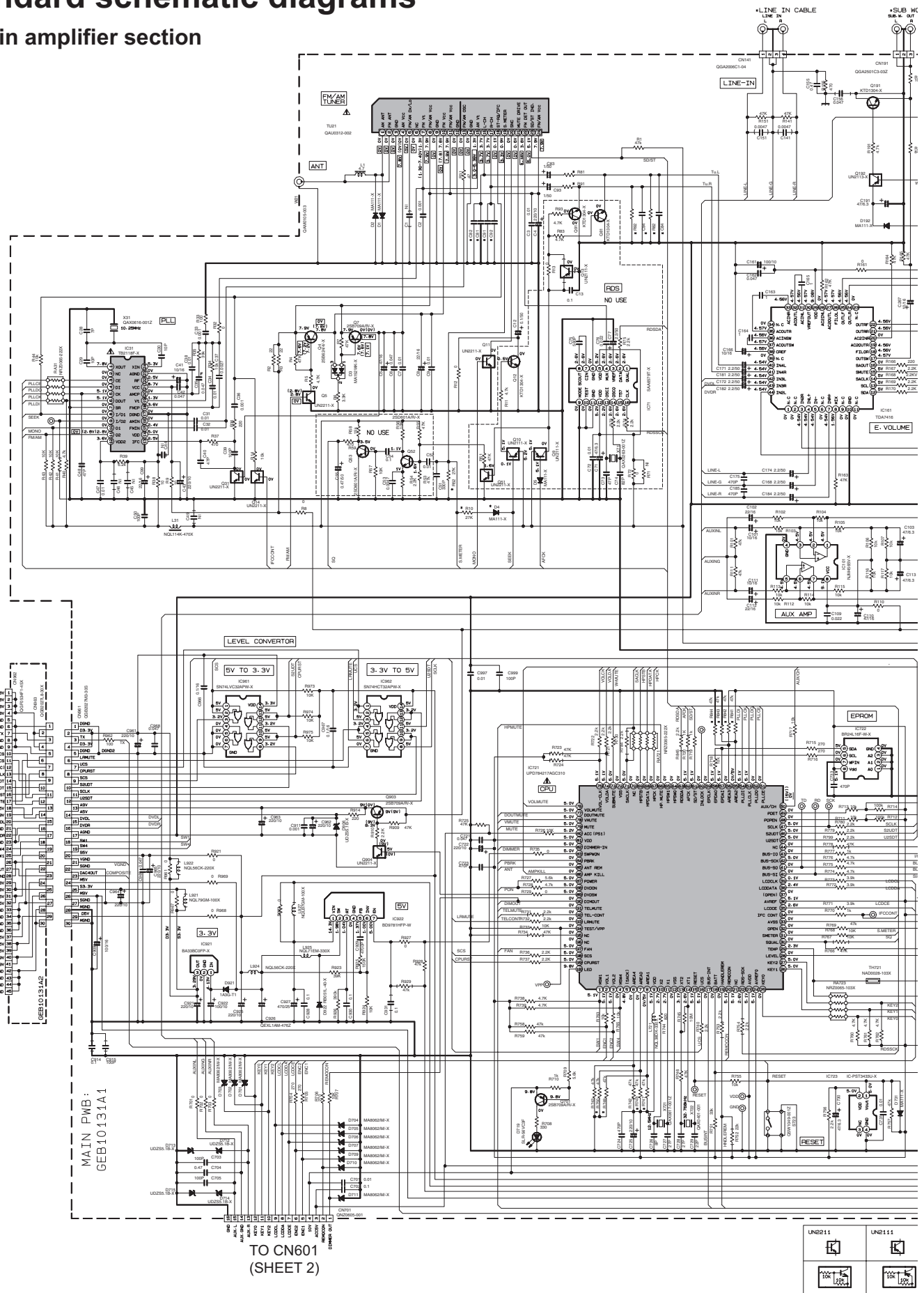




# Standard schematic diagrams

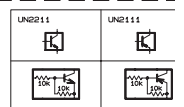
## ■ Main amplifier section

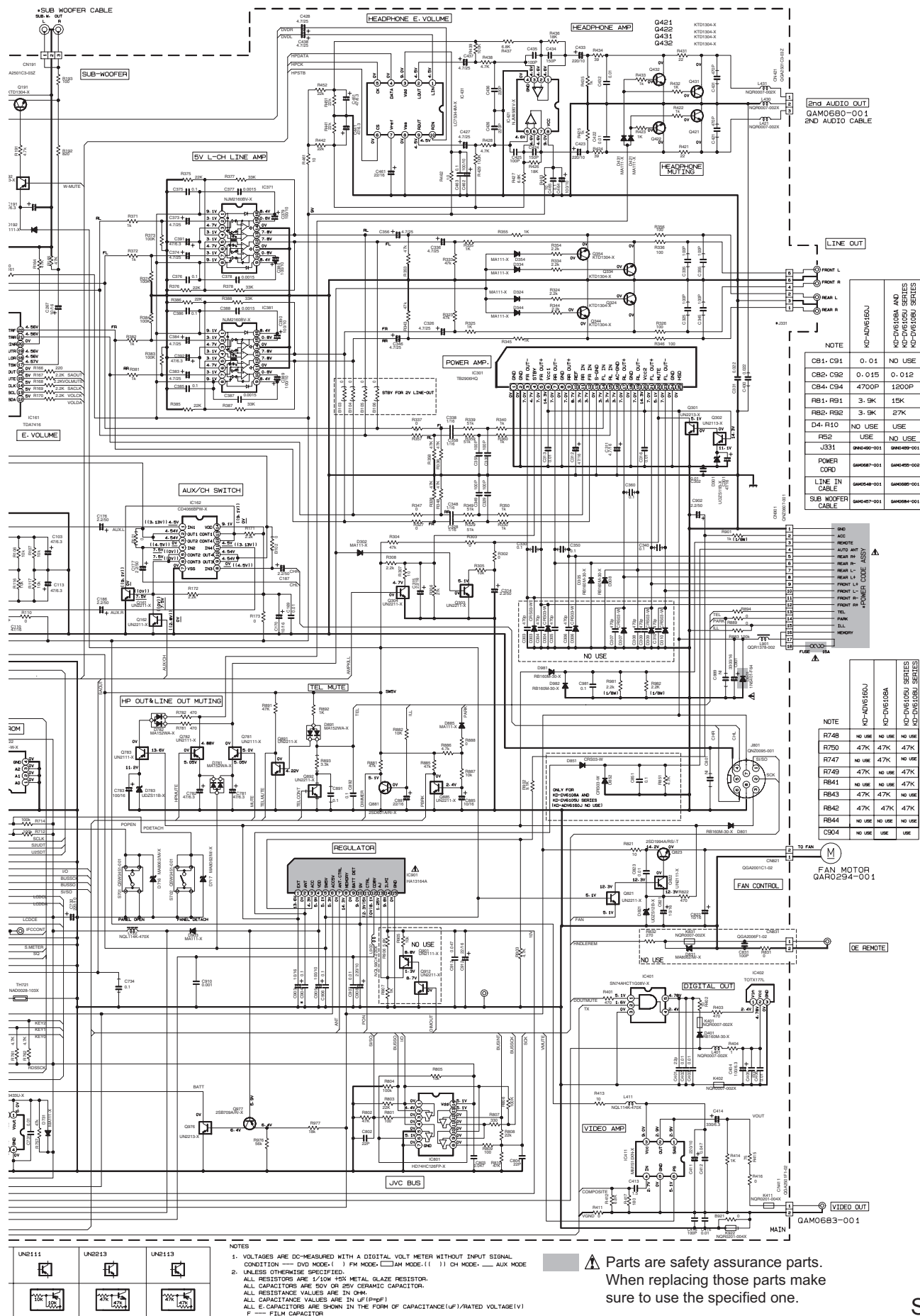
TO CN403 (SHEET 3)  
TO FMU-JD4-1D MECHA



TO CN601  
(SHEET 2)

MAIN PWB:  
GEB10131A1





2nd AUDIO OUT  
QAM0680-001  
2ND AUDIO CABLE

LINE OUT

NOTE

	NO-ADVISEU	NO-DIGUSA AND NO-DIGUSU SERIES
C81-C91	0.01	NO USE
C82-C92	0.015	0.012
C84-C94	4700P	1200P
R81-R91	3.9K	15K
R82-R92	3.9K	27K
D4-R10	NO USE	USE
R52	USE	NO USE
J331	QAM0680-001	QAM0680-001
POWER CORD	QAM0687-001	QAM0687-001
LINE IN CABLE	QAM0684-001	QAM0684-001
SUB WOOFER CABLE	QAM0687-001	QAM0684-001

NOTE

	NO-ADVISEU	NO-DIGUSA	NO-DIGUSU SERIES
R748	NO USE	NO USE	NO USE
R750	47K	47K	47K
R747	NO USE	47K	NO USE
R749	47K	NO USE	47K
R841	NO USE	NO USE	47K
R843	47K	47K	NO USE
R842	47K	47K	47K
R844	NO USE	NO USE	NO USE
C904	NO USE	USE	USE

FAN MOTOR  
QAR0294-001

GE REMOTE

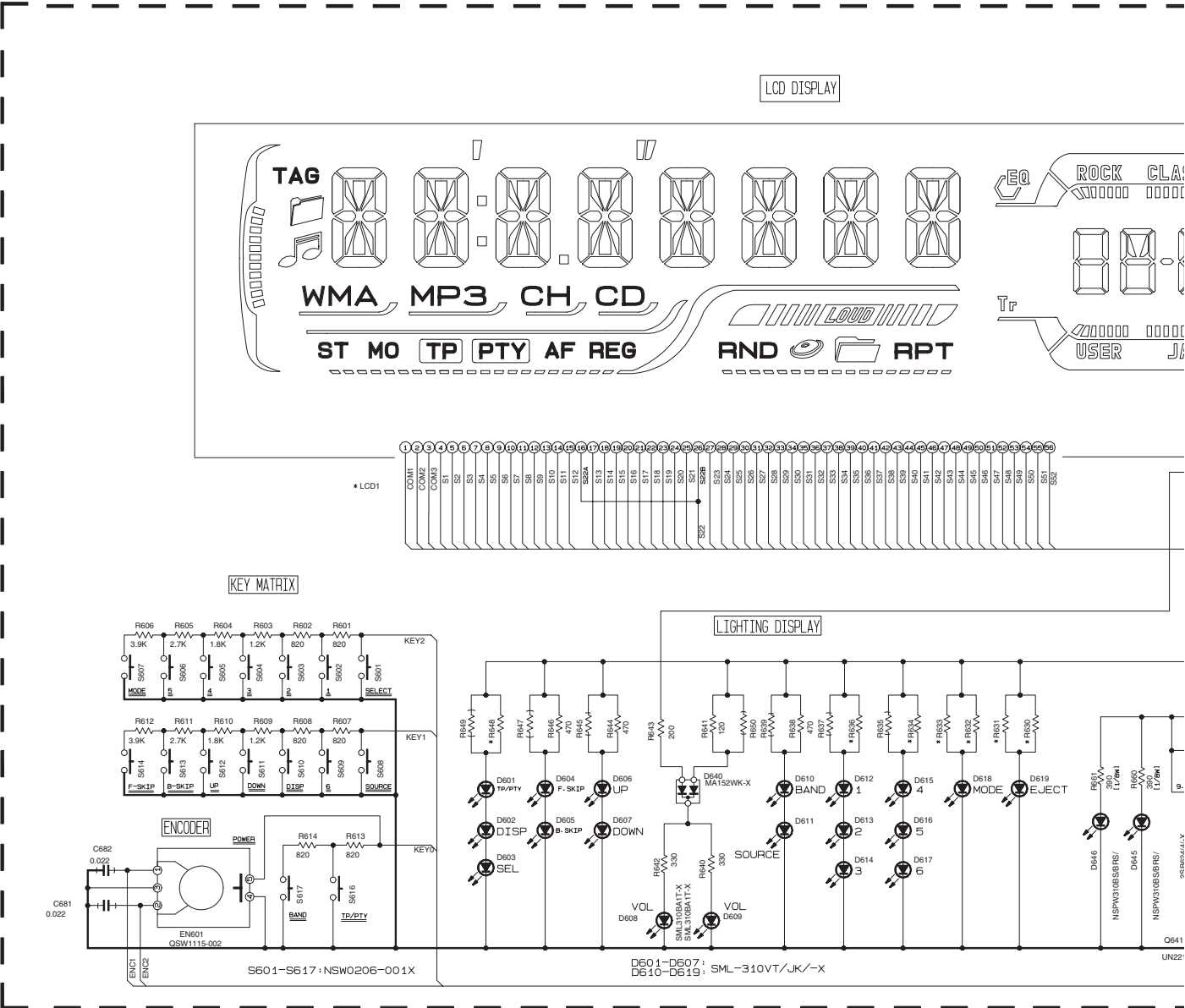
GAM0683-001

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.  
CONDITION — DVD MODE: ( ) 1 PM MODE: ( ) CH MODE: ( ) AUX MODE: ( )
  2. UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS ARE 1/10W 5% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM.  
ALL CAPACITANCE VALUES ARE IN UF(PHOF)  
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(UF1/RATED VOLTAGE(V))  
F — FILM CAPACITOR
  3. NZ STANDS FOR NOT MOUNTED PARTS

⚠ Parts are safety assurance parts.  
When replacing those parts make  
sure to use the specified one.

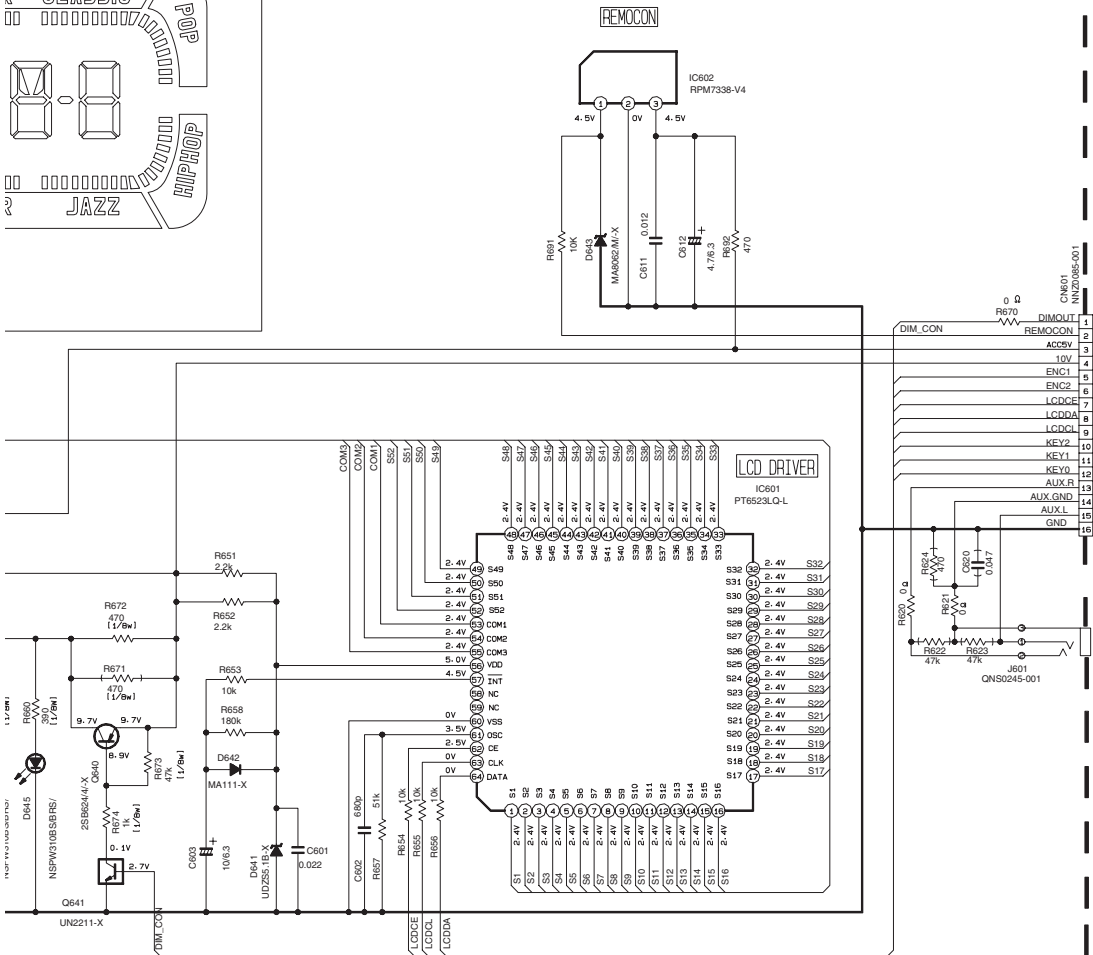
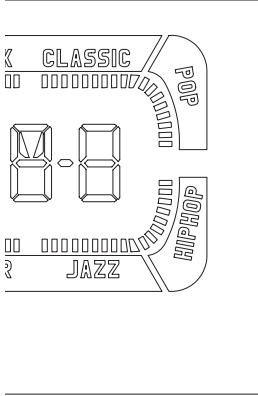
SHEET 1

■ LCD & Key switch section

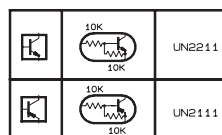


* REMARKS	KD-ADV6160J	KD-DV6105U SERIES	KD-DV6108A KD-DV6108U SEIRES
R630	1.2K	1K	1.2K
R631	1.2K	—	1.2K
R632	1.2K	820	1.2K
R633	1.2K	—	1.2K
R634 R636 R648	270	330	270
LCD1	QLD0349-001	QLD0354-001	QLD0354-001

SW PWB : GEB10134A



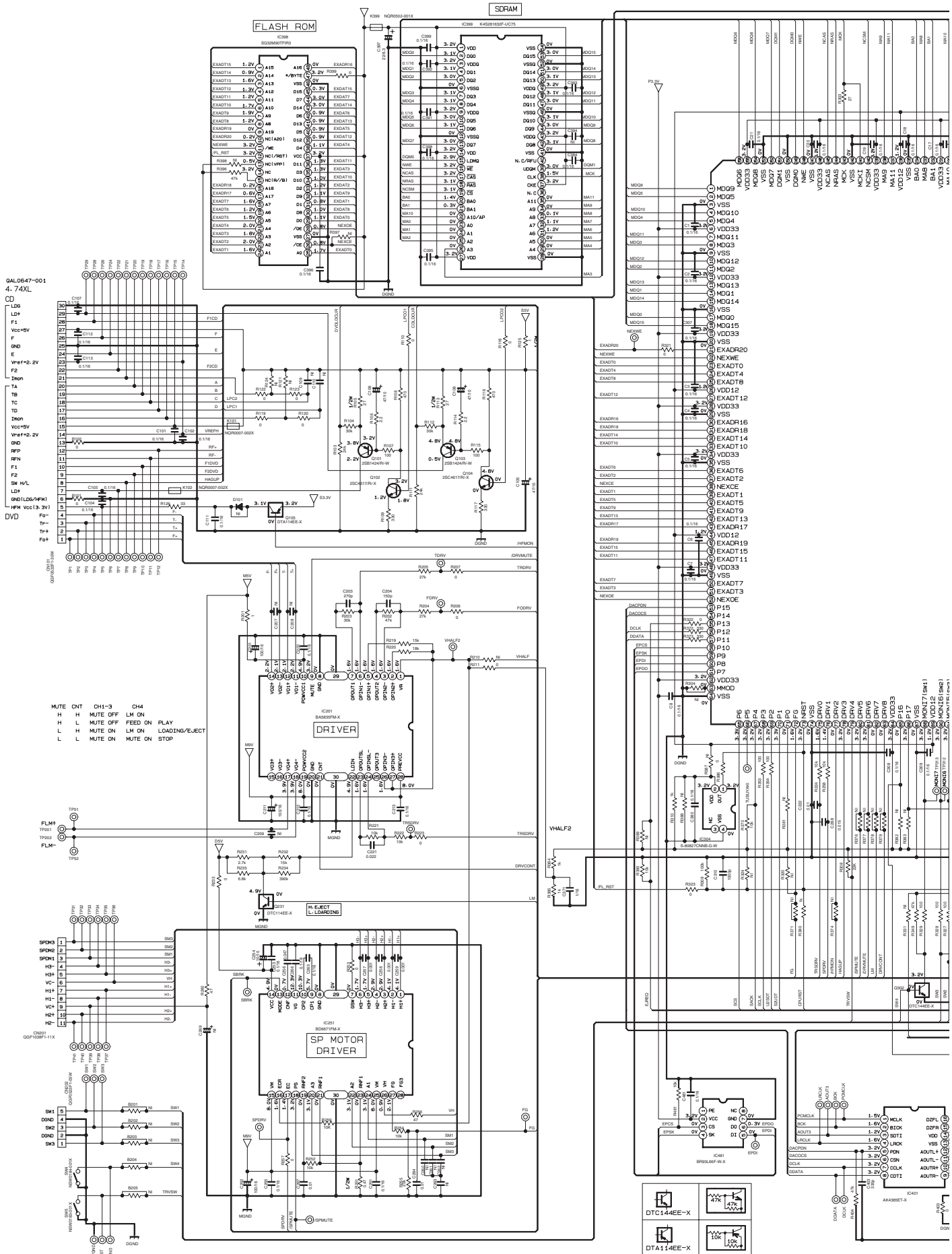
TO CN701  
(SHEET 1)



#### NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.
2. UNLESS OTHERWISE SPECIFIED.  
ALL RESISTORS ARE 1/16W METAL GLAZE RESISTORS.  
ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM.  
ALL CAPACITANCE VALUES ARE IN uF(P=pF)  
ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(uF)/RATED VOLTAGE(V)  
T --- TANTALUM CAPACITOR.
3. COMPONENTS IN ( ) INDICATE NOT USE.

## ■ DVD section



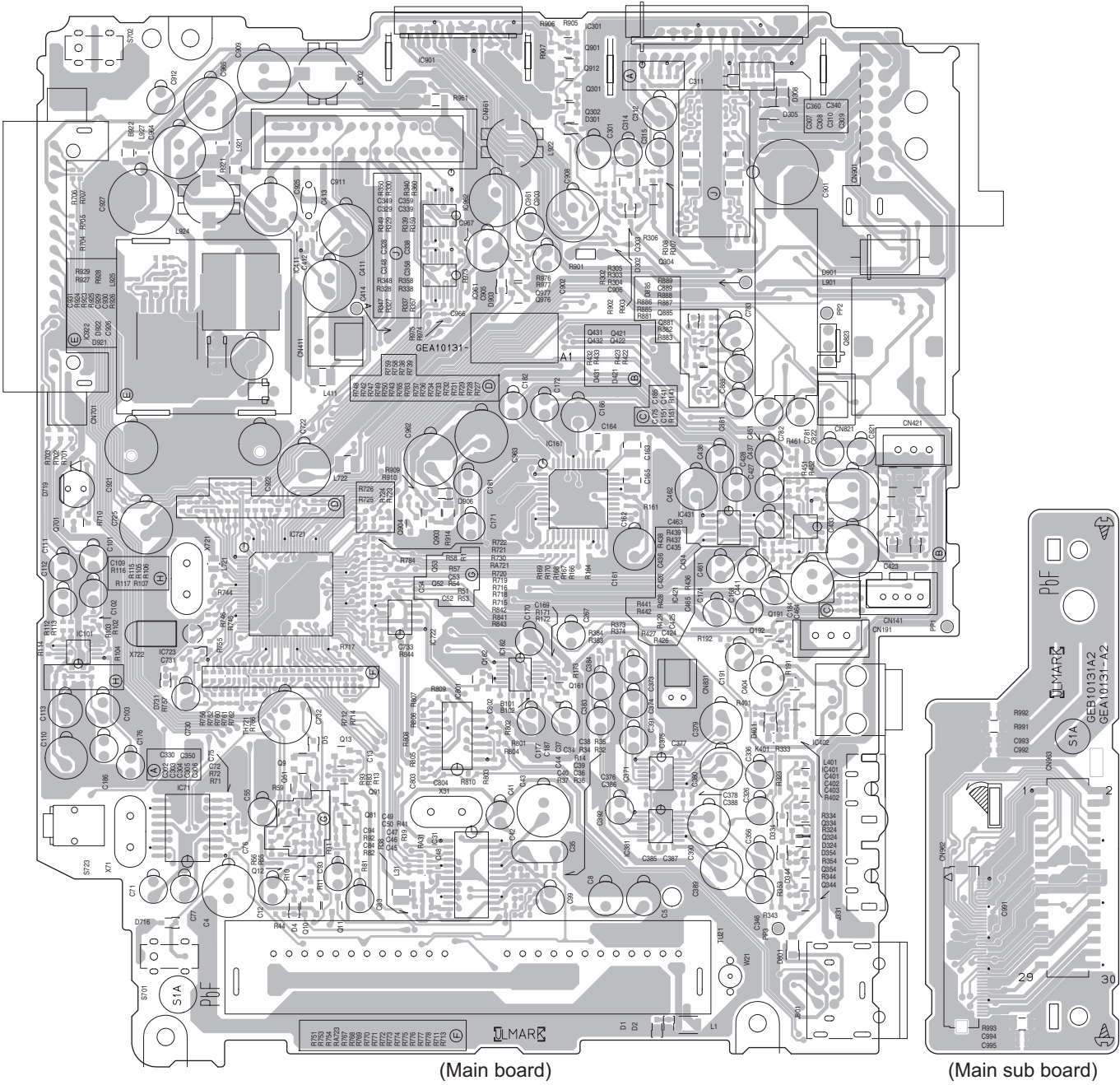




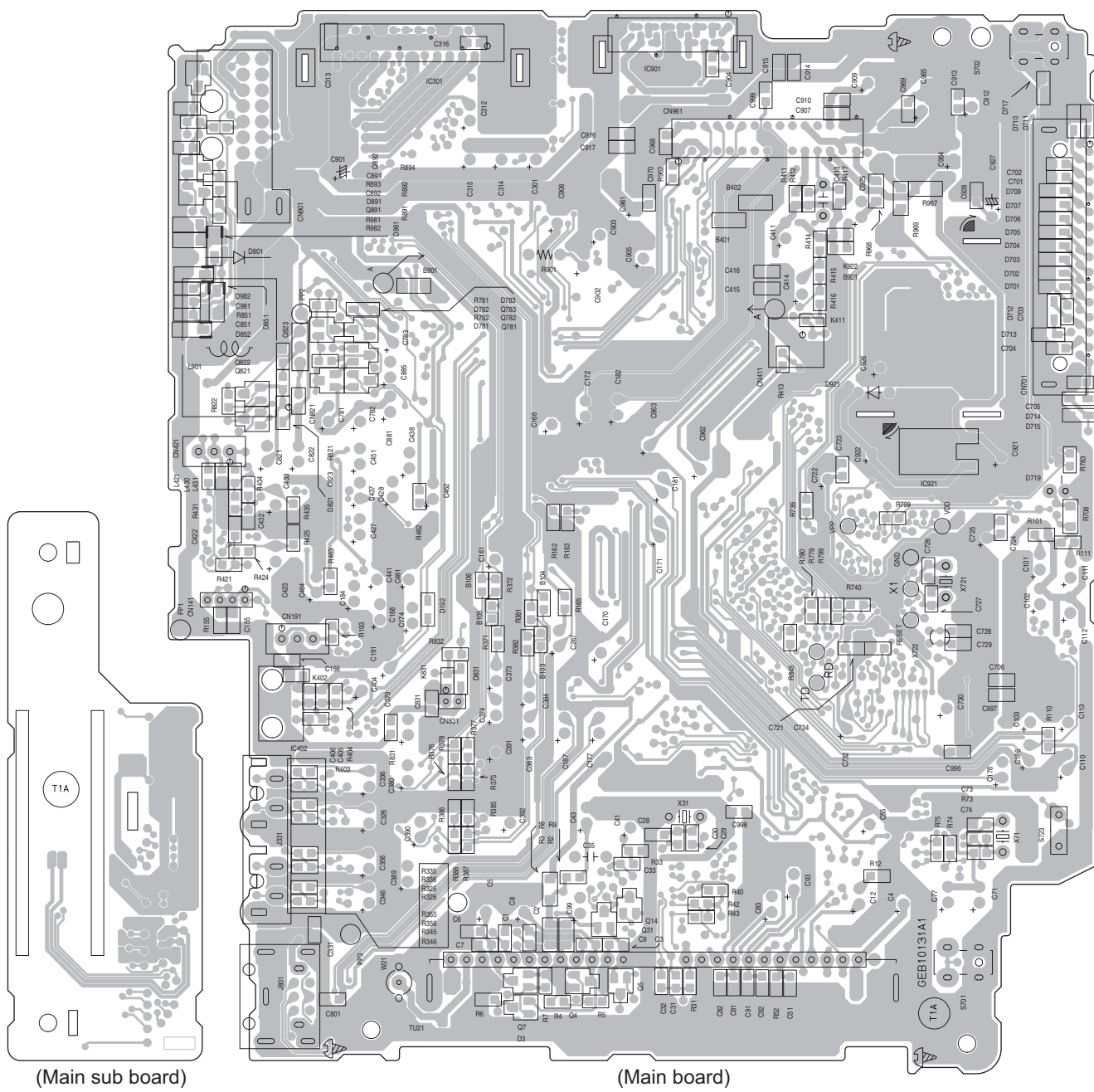
# Printed circuit boards

## ■ Main board

Forward side

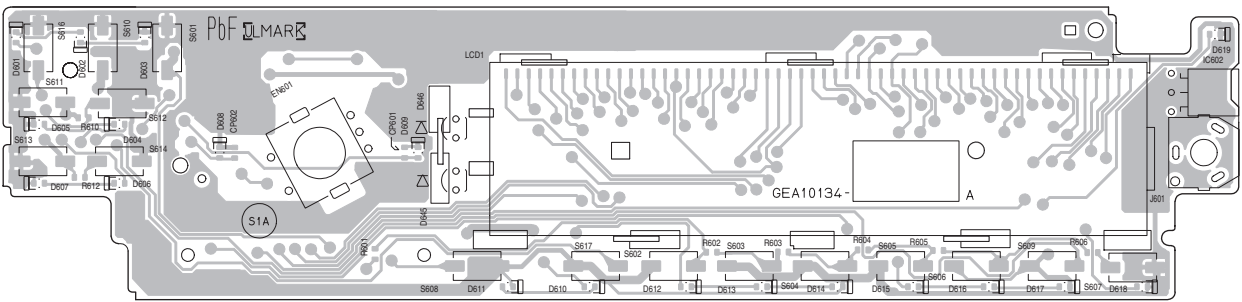


## Reverse side

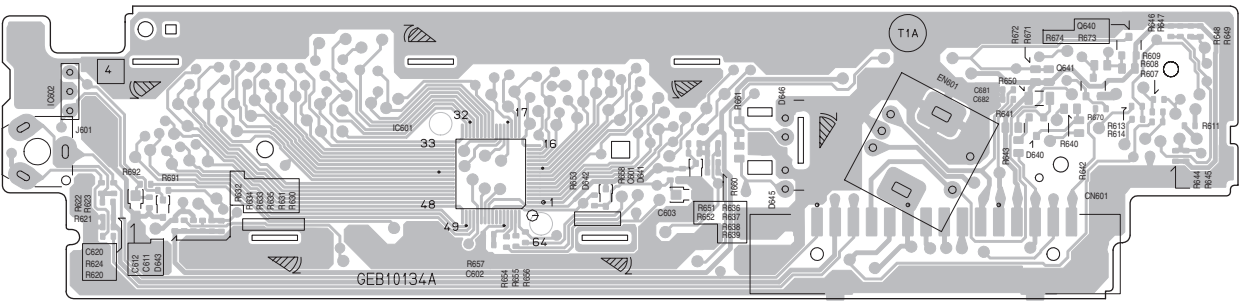


■ Switch board

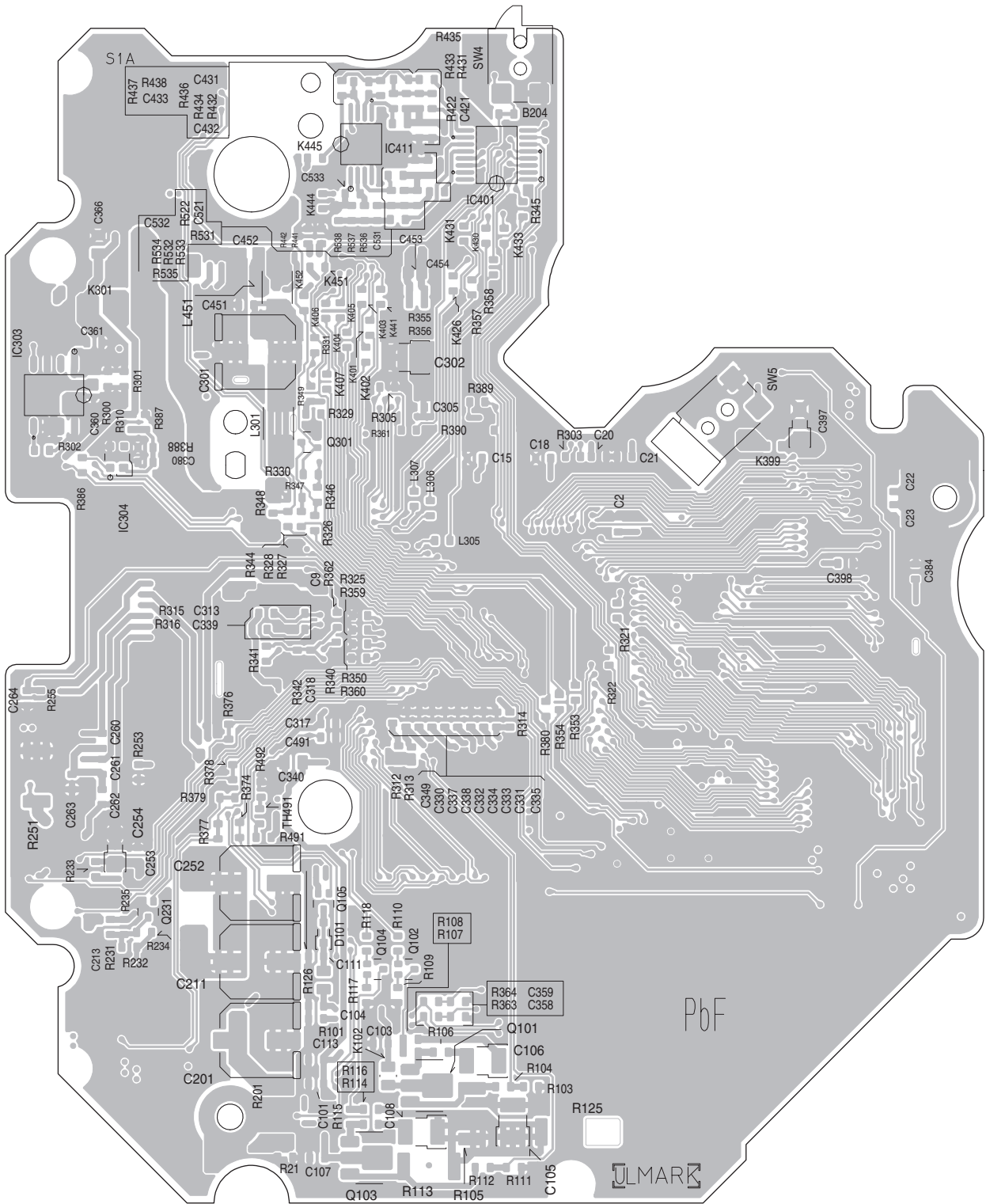
Forward side



Reverse side



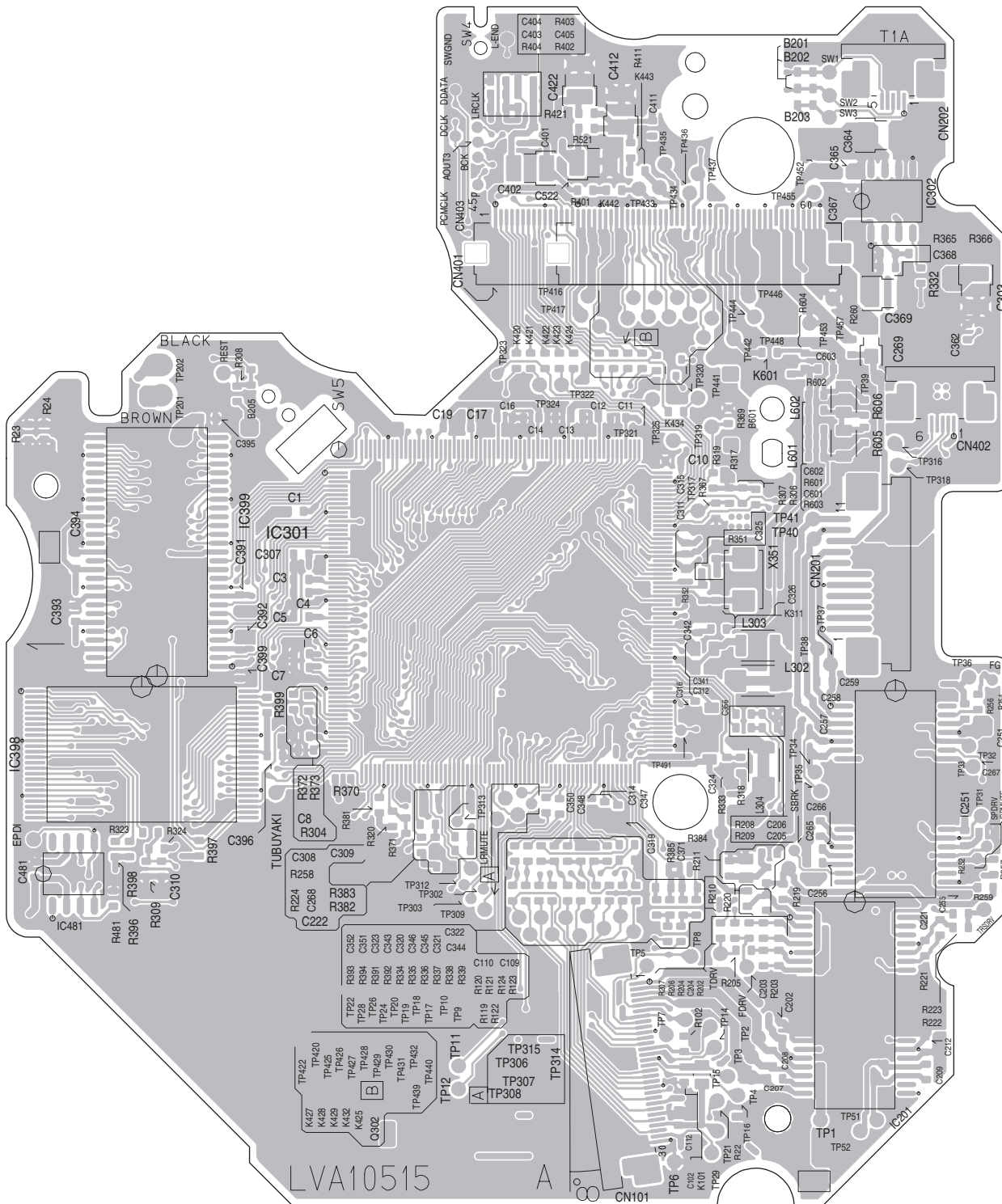
Forward side





## ■ Mechanism control board

Reverse side



< MEMO >



Victor Company of Japan, Limited

AV & MULTIMEDIA COMPANY CAR ELECTRONICS CATEGORY 10-1, 1chome, Ohwatari-machi, Maebashi-city, 371-8543, Japan

(No.MA153SCH)



Printed in Japan  
VPT



# PARTS LIST

[ KD-ADV6160 ]

\* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

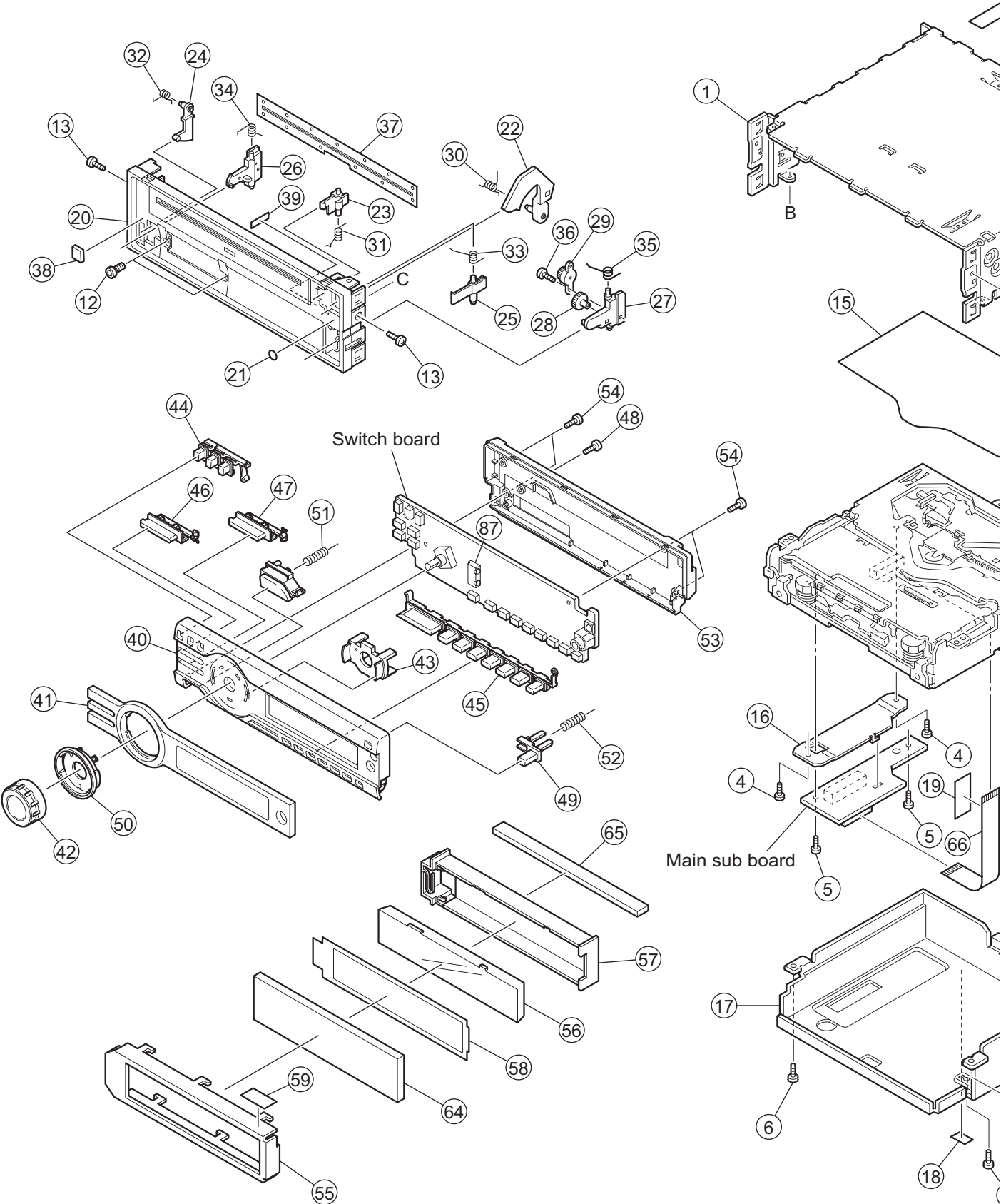
J ----- Northern America

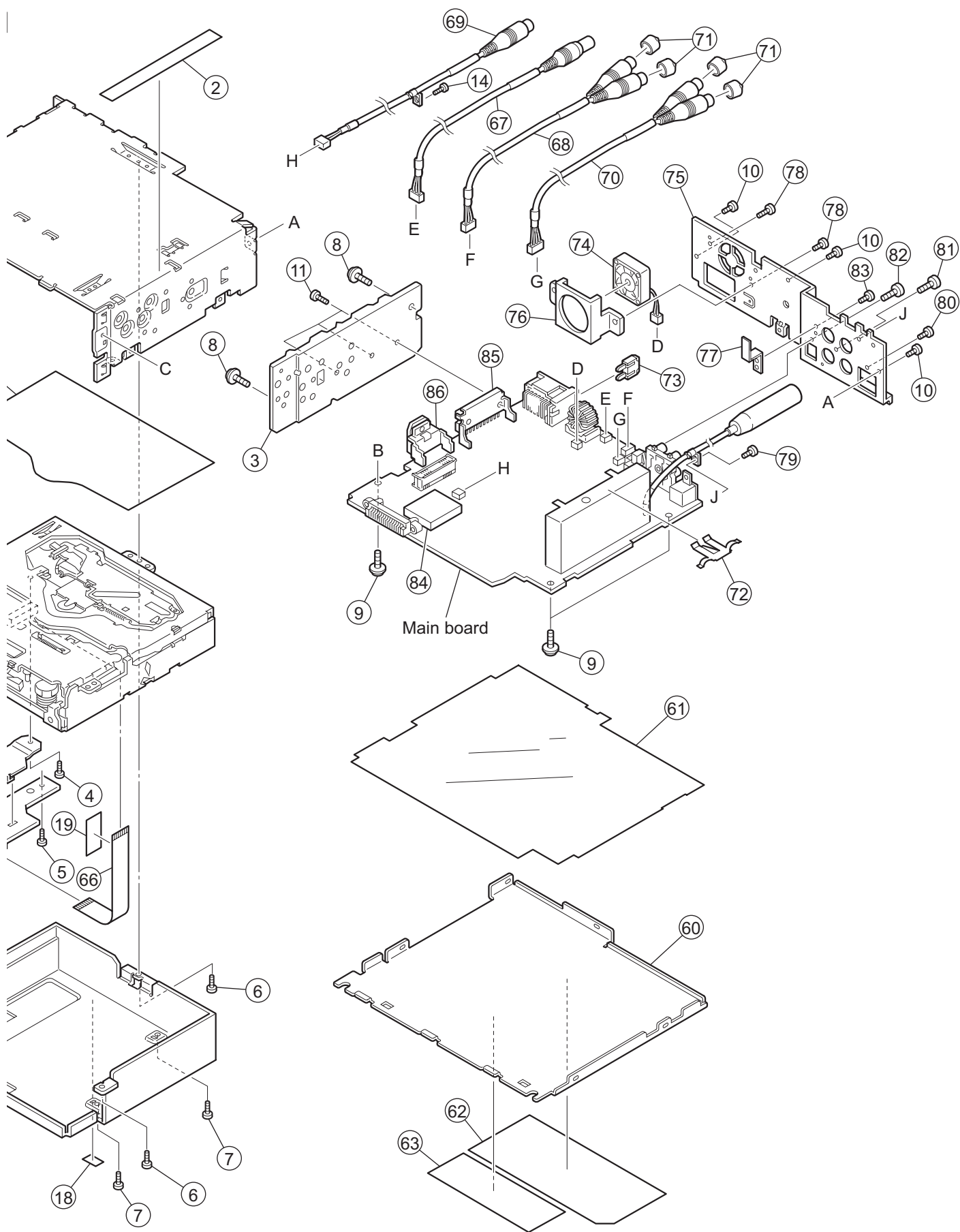
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DVD mechanism assembly and parts list (Block No.MJ) .....	3- 6
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Packing materials and accessories parts list (Block No.M3) .....	3-18

# Exploded view of general assembly and parts list

Block No. M 1 M M





# General Assembly

Block No. [M][1][M][M]

Symbol No.	Part No.	Part Name	Description	Local
1	LV10774-004A	TOP CHASSIS		
2	LV40848-044A	SPACER(P)		
3	LV34061-001A	SIDE HEAT SINK		
4	QYSDST2003ZA	TAP SCREW	M2 x 3mm(x2)	
5	QYSDST2606ZA	TAP SCREW	M2.6 x 6mm(x2)	
6	QYSDST2604ZA	TAP SCREW	M2.6 x 4mm(x3)	
7	QYSDST2604ZA	TAP SCREW	M2.6 x 4mm(x2)	
8	GE40235-001A	SCREW	(x2)	
9	GE40235-004A	SCREW	(x3)	
10	QYSDST2604ZA	TAP SCREW	M2.6 x 4mm(x3)	
11	LV41200-005A	SCREW	(x3)	
12	QYSDSF2006ZA	TAP SCREW	M2 x 6mm(x2)	
13	QYSDST2004ZA	TAP SCREW	M2 x 4mm(x2)	
14	QYSDST2604ZA	TAP SCREW	M2.6 x 4mm	
15	LV34460-001A	INSULATOR		
16	GE40255-001A	SUPPORT BRACKET		
17	GE20180-001A	DUST COVER		
18	FSYH4036-029	SPACER		
19	GE40278-001A	SHEET		
20	LV34065-004A	F.CHASSIS ASSY		
21	FSYH4036-098	SHEET		
22	GE30827-002A	OPEN LEVER		
23	GE30824-002A	LOCK LEVER(O.L)		
24	GE31245-002A	RELEASE LEVER		
25	GE30829-001A	LOCK LEVER(TOP)		
26	GE31607-001A	LOCK LEVER(L)		
27	GE31608-001A	LOCK LEVER(R)		
28	GE40154-001A	GEAR		
29	QZW0108-002	OIL DAMPER		
30	GE40153-001A	T.SPRING		
31	GE40157-001A	T.SPRING		
32	VKW5264-005	T.SPRING		
33	FSKW4012-002	T.SPRING		
34	LV43392-001A	T.SPRING		
35	GE40155-001A	T.SPRING		
36	QYSDSF2006ZA	TAP SCREW	M2 x 6mm	
37	GE40156-001A	BLIND		
38	LV40848-042A	SPACER(P)		
39	LV40848-043A	SPACER(P)		
40	GE31590-011A	FRONT PANEL ASSY		
41	GE31591-007A	FINDER ASSY		
42	GE40254-005A	VOLUME KNOB ASS		
43	GE31599-001A	RIM LENS		
44	GE31593-001A	D.FUNC BTN		
45	GE20175-002A	PRESET BUTTON		
46	GE31594-002A	UP/DOWN BTN		
47	GE31595-002A	SEARCH BTN		
48	VKZ4777-010	MINI SCREW		
49	GE31601-002A	EJECT BUTTON		
50	GE31598-002A	RIM COVER		
51	FSKW3002-012	COMP.SPRING		
52	GE40202-012A	COMPRESSION SPRING		
53	GE10107-002A	REAR COVER		
54	VKZ4777-010	MINI SCREW	(x4)	
55	GE31603-001A	LCD CASE		
56	GE31604-001A	LCD LENS		
57	GE31605-001A	LENS CASE		
58	GE40251-002A	LIGHTING SHEET		
59	GE40218-032A	SHEET		
60	LV34058-001A	BOTTOM COVER		
61	GE31663-001A	INSULATOR		
62	GE31524-002A	NAME PLATE		
63	GE31683-009A	LABEL (DVD)		
64	QLD0349-001	LCD MODULE		
65	QNZ0772-001	RUBBER CONN		
66	QUQ105-4510AE	FFC WIRE	45pin 10cm	
67	QAM0680-001	HP CABLE		
68	QAM0548-001	L-IN CABLE		
69	QAM0683-001	COMPOSITE CABLE		
70	QAM0547-001	SUBWOOFER CABEL		
71	VYTA500-001	PIN CAP	(x4)	
72	VMA4652-001SS	EARTH PLATE		
73	QMFZ039-150-T	FUSE	15A	
74	QAR0294-001	FAN MOTOR		

△	Symbol No.	Part No.	Part Name	Description	Local
75		GE31609-011A	REAR BRACKET		
76		GE40252-001A	FAN BRACKET		
77		GE40253-001A	WIRE HOLDER		
78		QYSDST2604ZA	TAP SCREW	M2.6 x 4mm(x2)	
79		QYSDST2604ZA	TAP SCREW	M2.6 x 4mm	
80		QYSDST2606ZA	TAP SCREW	M2.6 x 6mm	
81		QYSDSF3008ZA	TAP SCREW	M3 x 8mm	
82		QYSDSF3008ZA	TAP SCREW	M3 x 8mm	
83		QYSDST2604ZA	TAP SCREW	M2.6 x 4mm	
84		GE40270-001A	SHIELD COVER		
85		LV43349-002A	POWER IC BKT		
86		LV43373-002A	REGULATOR BKT		
87		GE30854-001A	LED HOLDER		

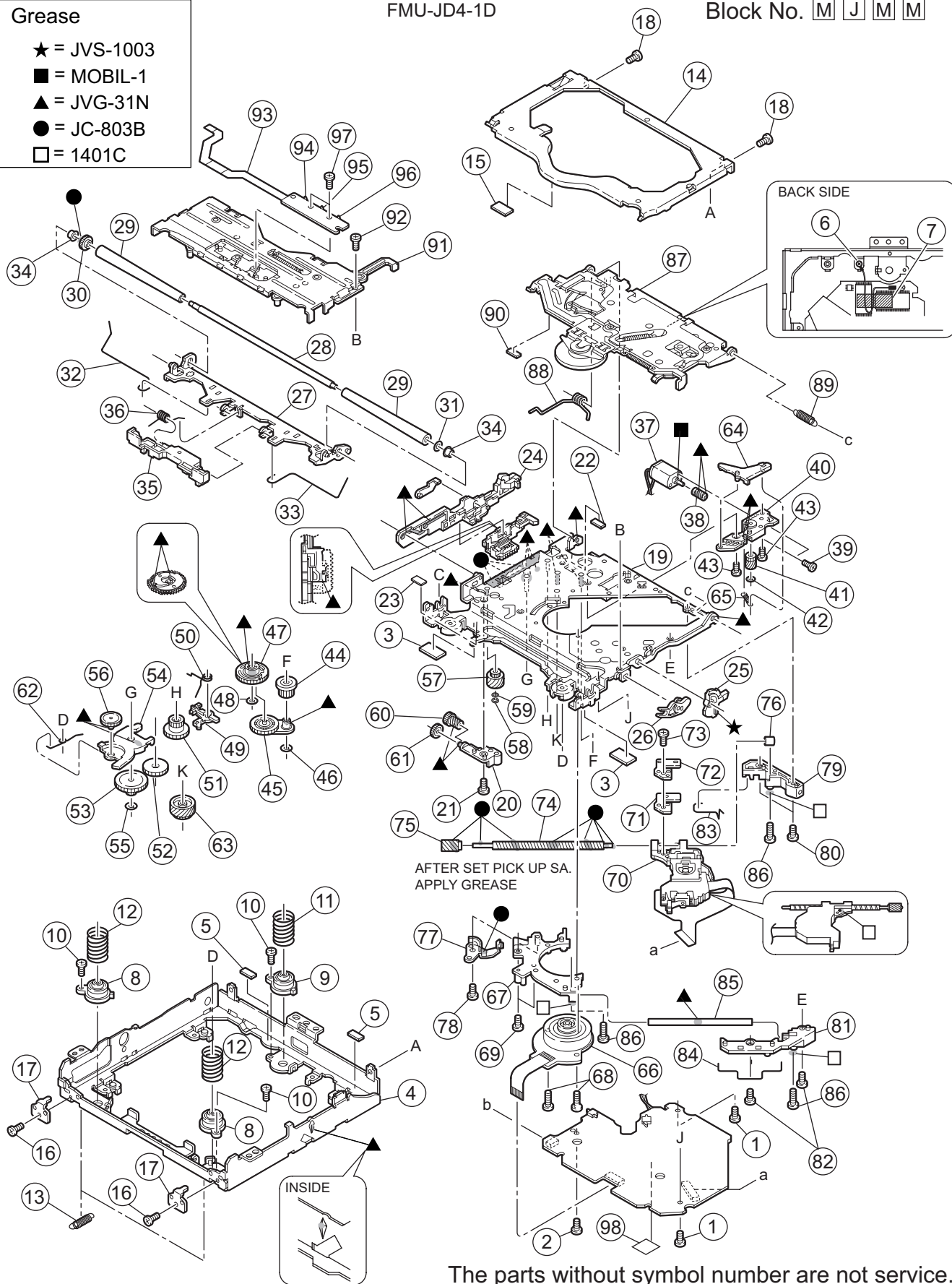
# DVD mechanism assembly and parts list

FMU-JD4-1D

Block No. **M J M M**

## Grease

- ★ = JVS-1003
- = MOBIL-1
- ▲ = JVG-31N
- = JC-803B
- = 1401C




The parts without symbol number are not service.

## DVD mechanism

Block No. [M][J][M][M]

△	Symbol No.	Part No.	Part Name	Description	Local
	1	VKZ4539-026	MINI SCREW	(x2)	
	2	QYSPSFT2040Z	TAP SCREW	M2 x 4mm	
	3	LV43481-001A	COOLING RUBBER	(x2)	
	4	LV10674-001A	CHASSIS FRAME		
	5	LV30225-0J6A	SPACER	(x2)	
	6	VKZ4539-056	MINI SCREW		
	7	VYSA1R4-056	SPACER		
	8	LV33684-001A	DAMPER(F)	(x2)	
	9	LV33685-001A	DAMPER(R)		
	10	QYSDST2005Z	TAP SCREW	M2 x 5mm(x3)	
	11	LV43039-001A	DAMPER SP.(R)		
	12	LV43040-001A	DAMPER SP.(F)	(x2)	
	13	LV43041-001A	FLOATING SPRING	(x2)	
	14	LV10675-001A	TOP COVER		
	15	LV30225-0J5A	SPACER		
	16	VKZ4539-026	MINI SCREW	(x2)	
	17	LV33669-001A	STOPPER	(x2)	
	18	VKZ4539-026	MINI SCREW	(x2)	
	19	LV21297-002A	CHAS. BASE ASSY		
	20	LV33608-001A	GEAR HOLDER		
	21	VKZ4539-026	MINI SCREW		
	22	LV43561-001A	ABSORBER		
	23	LV30225-0J5A	SPACER		
	24	LV33683-003A	SLIDE CAM ASSY		
	25	LV33610-001A	FLOATING ARM		
	26	LV33611-001A	CONNECT ARM		
	27	LV33678-003A	LOADING A. ASSY		
	28	LV43049-001A	LOADING SHAFT		
	29	LV43052-003A	ROLLER	(x2)	
	30	LV33612-001A	LOADING GEAR		
	31	QYWFM124013	WASHER	4mm/1.2mm x 0.13mm	
	32	LV43053-002A	ROD(L)		
	33	LV43054-003A	ROD(R)		
	34	LV43001-001A	COLLAR	(x2)	
	35	LV21285-001A	PROTECTOR		
	36	LV43055-001A	PROTECTOR SP.		
	37	QAR0144-003	MOTOR		
	38	LV43002-002A	WORM GEAR		
	39	QYSPSPT2025M	SCREW	M2 x 2.5mm(x2)	
	40	LV33679-001A	MOTOR H. ASSY		
	41	LV33614-002A	WORM WHEEL		
	42	QYWDL1230250	SLIT WASHER	3mm/1.2mm x 0.25mm	
	43	VKZ4539-026	MINI SCREW	(x2)	
	44	LV33615-001A	GEAR 2		
	45	LV43057-003A	IDLER ARM ASSY		
	46	QYWDL1635252	SLIT WASHER	3.5mm/1.6mm x 0.25mm	
	47	LV21286-001A	CONTROL CAM		
	48	QYWDL1230250	SLIT WASHER	3mm/1.2mm x 0.25mm	
	49	LV33616-001A	LOAD.LOCK LEVER		
	50	LV43060-001A	CAM SPRING		
	51	LV43005-001A	GEAR 4		
	52	LV43006-001A	GEAR 5		
	53	LV33617-001A	GEAR 6		
	54	LV33618-002A	LOADING G. ARM		
	55	QYWDL1635252	SLIT WASHER	3.5mm/1.6mm x 0.25mm	
	56	LV43007-001A	GEAR 7		
	57	LV33619-002A	GEAR 8		
	58	LV42132-001A	E RING		
	59	QYWFM215013	WASHER	5mm/2.1mm x 0.13mm	
	60	LV33620-001A	GEAR 9		
	61	LV43008-001A	GEAR10		
	62	LV43061-001A	LOAD SPRING		
	63	LV33621-001A	FEED GEAR		
	64	LV33622-001A	TRIGGER ARM		
	65	LV43062-001A	FEED TRI.SPRING		
	66	QAR0240-001	SPINDLE MOTOR		
	67	LV21287-002A	SPINDLE BASE		
	68	QYSPSTT2065M	TAP SCREW	M2 x 6.5mm(x2)	
	69	VKZ4539-026	MINI SCREW	(x2)	
	70	QAL0647-001	DVD PICK UP		
	71	LV33623-002A	RACK PLATE		
	72	LV43009-001A	RACK SPRING		
	73	QYSPSPT1740N	SCREW	M1.7 x 4mm	
	74	LV43037-001A	LEAD SCREW		

 Symbol No.	Part No.	Part Name	Description	Local
75	LV43010-001A	L.S.GEAR		
76	LV43063-001A	L.S.COLLAR		
77	LV43011-001A	THRUST SPRING		
78	QYSPSFT2040Z	TAP SCREW	M2 x 4mm	
79	LV33624-001A	HOLDER(M)		
80	VKZ4539-026	MINI SCREW	(x2)	
81	LV21288-001A	HOLDER(S)		
82	VKZ4539-026	MINI SCREW	(x2)	
83	LV43064-001A	ROD(M)		
84	LV43065-001A	ROD(S)		
85	LV43066-001A	SUB SHAFT		
86	VKZ4730-001	SPECIAL SCREW	(x3)	
87	LV21298-006A	CLAMPER UNIT		
88	LV43070-001A	CLAMPER SPRING		
89	LV43355-001A	CLAMPER2 SPRING		
90	LV30225-0J6A	SPACER		
91	LV21299-006A	FRONT UNIT		
92	VKZ4539-026	MINI SCREW		
93	LVB30012-001A	SW FPC		
94	NSW0187-001	SWITCH		
95	NSW0187-001	SWITCH		
96	NSW0187-001	SWITCH		
97	VKZ4539-025	MINI SCREW	(x2)	
98	LV44232-001A	GRAPHITE SHEET		



# Electrical parts list

## Main board

Block No. [0][1]

△ Symbol No.	Part No.	Part Name	Description	Local
△ IC31	TB2118F-X	PLL IC		
IC101	NJM4565V-X	IC		
IC161	TDA7416	IC		
IC162	CD4066BPW-X	IC		
IC301	TB2906HQ	IC		
IC371	NJM2160BV-X	IC		
IC381	NJM2160BV-X	IC		
IC401	SN74AHCT1G08V-X	IC		
IC402	TOTX177L	OPTICAL JACK		
IC411	MM1510XN-X	IC		
IC421	NJM4580V-X	IC		
IC431	LC75344M-X	IC		
△ IC721	UPD784217AGC310	IC		
IC722	BR24L16F-W-X	IC		
IC723	IC-PST3433U-X	IC		
IC801	HD74HC126FP-X	IC		
△ IC901	HA13164A	IC		
IC921	BA33BC0FP-X	IC		
IC922	BD9781HFP-W	DC CONVERTOR		
IC961	SN74LVC32APW-X	IC		
IC962	SN74HCT32APW-X	IC		
Q4	2SB624/4/-X	TRANSISTOR		
Q5	UN2211-X	TRANSISTOR		
Q7	2SB709A/R/-X	TRANSISTOR		
Q11	UN2211-X	TRANSISTOR		
Q14	UN2211-X	TRANSISTOR		
Q31	UN2211-X	TRANSISTOR		
Q161	UN2211-X	TRANSISTOR		
Q162	UN2211-X	TRANSISTOR		
Q191	KTD1304-X	TRANSISTOR		
Q192	UN2113-X	DIGI TRANSISTOR		
Q301	UN2213-X	DIGI TRANSISTOR		
Q302	UN2113-X	DIGI TRANSISTOR		
Q303	UN2211-X	TRANSISTOR		
Q304	UN2211-X	TRANSISTOR		
Q324	KTD1304-X	TRANSISTOR		
Q334	KTD1304-X	TRANSISTOR		
Q344	KTD1304-X	TRANSISTOR		
Q354	KTD1304-X	TRANSISTOR		
Q421	KTD1304-X	TRANSISTOR		
Q422	KTD1304-X	TRANSISTOR		
Q431	KTD1304-X	TRANSISTOR		
Q432	KTD1304-X	TRANSISTOR		
Q701	2SB709A/R/-X	TRANSISTOR		
Q781	UN2111-X	TRANSISTOR		
Q782	UN2111-X	TRANSISTOR		
Q783	UN2111-X	TRANSISTOR		
Q821	UN2211-X	TRANSISTOR		
Q822	UN2111-X	TRANSISTOR		
Q823	2SD1994A/RS/-T	TRANSISTOR		
Q881	2SD601A/R/-X	TRANSISTOR		
Q885	UN2211-X	TRANSISTOR		
Q891	UN2211-X	TRANSISTOR		
Q903	2SB709A/R/-X	TRANSISTOR		
Q904	UN2211-X	TRANSISTOR		
Q976	UN2213-X	DIGI TRANSISTOR		
Q977	2SB709A/R/-X	TRANSISTOR		
D1	MA111-X	SI DIODE		
D2	MA111-X	SI DIODE		
D3	MA152WK-X	SI DIODE		
D192	MA111-X	SI DIODE		
D301	UDZS11B-X	Z DIODE		
D302	MA111-X	SI DIODE		
D305	RB160M-30-X	SB DIODE		
D308	RB160M-30-X	SB DIODE		
D324	MA111-X	SI DIODE		
D334	MA111-X	SI DIODE		
D344	MA111-X	SI DIODE		
D354	MA111-X	SI DIODE		
D401	RB160M-30-X	SB DIODE		

△ Symbol No.	Part No.	Part Name	Description	Local
D421	MA111-X	SI DIODE		
D431	MA111-X	SI DIODE		
D701	MA8062/M/-X	Z DIODE		
D702	MA8062/M/-X	Z DIODE		
D703	MA8062/M/-X	Z DIODE		
D704	MA8062/M/-X	Z DIODE		
D705	MA8062/M/-X	Z DIODE		
D706	MA8062/M/-X	Z DIODE		
D707	MA8062/M/-X	Z DIODE		
D709	MA8062/M/-X	Z DIODE		
D710	MA8062/M/-X	Z DIODE		
D711	MA8062/M/-X	Z DIODE		
D712	UDZS5.1B-X	Z DIODE		
D713	UDZS5.1B-X	Z DIODE		
D714	UDZS5.1B-X	Z DIODE		
D715	UDZS5.1B-X	Z DIODE		
D716	MA8062/M/-X	Z DIODE		
D717	MA8062/M/-X	Z DIODE		
D719	SLR-56VC3F	DIODE C.M		
D731	MA111-X	SI DIODE		
D781	MA152WA-X	DIODE		
D782	MA152WA-X	DIODE		
D783	UDZS11B-X	Z DIODE		
D801	RB160M-30-X	SB DIODE		
D821	UDZS12B-X	Z DIODE		
D885	MA111-X	SI DIODE		
D891	MA152WA-X	DIODE		
△ D901	1N5401-F64	DIODE		
D903	MA111-X	SI DIODE		
D906	UDZS5.1B-X	Z DIODE		
D921	1A3G-T1	SI DIODE		
D922	RB051L-40-X	SB DIODE		
D981	RB160M-30-X	SB DIODE		
D982	RB160M-30-X	SB DIODE		
C2	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C3	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C4	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C5	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M	
C6	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C7	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C8	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C9	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C12	QEKJ1HM-104Z	E CAPACITOR	0.1uF 50V M	
C28	NCS31HJ-7R0X	C CAPACITOR	7pF 50V J	
C29	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C30	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C31	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C32	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C33	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C34	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C35	QFV61HJ-473Z	MF CAPACITOR	0.047uF 50V J	
C36	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C37	NCB31HK-272X	C CAPACITOR	2700pF 50V K	
C38	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C39	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C40	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C41	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M	
C42	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C43	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C47	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C48	NCS31HJ-470X	C CAPACITOR	47pF 50V J	
C50	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C51	NCS31HJ-331X	C CAPACITOR	330pF 50V J	
C81	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C82	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	
C83	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C84	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C91	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C92	NCB31HK-153X	C CAPACITOR	0.015uF 50V K	
C93	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C94	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C99	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C101	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M	
C102	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C103	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C109	NCB31EK-223X	C CAPACITOR	0.022uF 25V K		C414	QERF0JM-337Z	E CAPACITOR	330uF 6.3V M	
C110	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M		C415	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C111	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M		C416	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C112	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M		C422	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C113	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M		C423	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C155	NCB31AK-474X	C CAPACITOR	0.47uF 10V K		C424	NCS31HJ-151X	C CAPACITOR	150pF 50V J	
C156	NCB31EK-473X	C CAPACITOR	0.047uF 25V K		C425	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C161	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M		C426	NCS31HJ-221X	C CAPACITOR	220pF 50V J	
C162	NCB31CK-473X	C CAPACITOR	0.047uF 16V K		C427	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	
C163	NFV81CM-105X	MF CAPACITOR	1uF 16V M		C428	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	
C164	NFV81CM-105X	MF CAPACITOR	1uF 16V M		C432	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
C165	NFV81CM-105X	MF CAPACITOR	1uF 16V M		C433	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C166	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M		C434	NCS31HJ-151X	C CAPACITOR	150pF 50V J	
C168	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C435	NCS31HJ-101X	C CAPACITOR	100pF 50V J	
C169	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C436	NCS31HJ-221X	C CAPACITOR	220pF 50V J	
C170	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M		C437	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	
C171	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C438	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	
C172	QTE1H55-225Z	E CAPACITOR	2.2uF 50V		C441	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C174	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C451	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C175	NCB31HK-471X	C CAPACITOR	470pF 50V K		C461	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C176	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C462	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	
C177	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C463	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C181	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C464	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	
C182	QTE1H55-225Z	E CAPACITOR	2.2uF 50V		C465	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C184	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C701	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C185	NCB31HK-471X	C CAPACITOR	470pF 50V K		C702	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C186	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C703	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C187	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C704	NCB31AK-474X	C CAPACITOR	0.47uF 10V K	
C191	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M		C705	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C267	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M		C721	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C301	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M		C722	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C302	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C723	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C311	NBE21CM-475X	TA E CAPACITOR	4.7uF 16V M		C724	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C312	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M		C725	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C313	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C726	NDC31HJ-8R0X	C CAPACITOR	8pF 50V J	
C314	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M		C727	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
C315	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M		C728	NDC31HJ-270X	C CAPACITOR	27pF 50V J	
C316	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C729	NDC31HJ-220X	C CAPACITOR	22pF 50V J	
C326	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M		C730	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C328	NFV81CM-105X	MF CAPACITOR	1uF 16V M		C731	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C329	NCS31HJ-101X	C CAPACITOR	100pF 50V J		C732	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C331	NCB31HK-223X	C CAPACITOR	0.022uF 50V K		C733	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C336	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M		C781	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C338	NFV81CM-105X	MF CAPACITOR	1uF 16V M		C782	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M	
C339	NCS31HJ-101X	C CAPACITOR	100pF 50V J		C783	QEKJ1CM-107Z	E CAPACITOR	47uF 16V M	
C346	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M		C802	NCS31HJ-220X	C CAPACITOR	22pF 50V J	
C348	NFV81CM-105X	MF CAPACITOR	1uF 16V M		C803	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C349	NCS31HJ-101X	C CAPACITOR	100pF 50V J		C804	NCS31HJ-220X	C CAPACITOR	22pF 50V J	
C356	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M		C821	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M	
C358	NFV81CM-105X	MF CAPACITOR	1uF 16V M		C822	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M	
C359	NCS31HJ-101X	C CAPACITOR	100pF 50V J		C823	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C373	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M		C881	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C374	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M		C885	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M	
C375	NCB31EK-104X	C CAPACITOR	0.1uF 25V K		C892	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C376	NCB31EK-104X	C CAPACITOR	0.1uF 25V K		C901	QE20722-338	E CAPACITOR	3300uF	
C377	NCB31HK-152X	C CAPACITOR	1500pF 50V K		C902	QEKJ1HM-225Z	E CAPACITOR	2.2uF 50V M	
C378	NCB31HK-152X	C CAPACITOR	1500pF 50V K		C903	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M	
C379	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M		C905	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	
C380	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M		C906	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C383	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M		C907	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C384	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M		C908	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C385	NCB31EK-104X	C CAPACITOR	0.1uF 25V K		C909	QEKJ1CM-107Z	E CAPACITOR	100uF 16V M	
C386	NCB31EK-104X	C CAPACITOR	0.1uF 25V K		C910	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C387	NCB31HK-152X	C CAPACITOR	1500pF 50V K		C911	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C388	NCB31HK-152X	C CAPACITOR	1500pF 50V K		C912	QEKJ1CM-226Z	E CAPACITOR	22uF 16V M	
C389	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M		C913	NCB31EK-473X	C CAPACITOR	0.047uF 25V K	
C390	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M		C921	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C391	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M		C922	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	
C392	QEKJ0JM-476Z	E CAPACITOR	47uF 6.3V M		C925	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C401	NCS31HJ-220X	C CAPACITOR	22pF 50V J		C926	QEXL1AM-476Z	E CAPACITOR	47uF 10V M	
C402	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C927	QE20595-477Z	E CAPACITOR	470uF	
C403	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C928	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C404	QEKJ0JM-107Z	E CAPACITOR	100uF 6.3V M		C929	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C405	NCS31HJ-220X	C CAPACITOR	22pF 50V J		C930	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C406	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C961	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C411	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M		C962	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C412	NCB31EK-473X	C CAPACITOR	0.047uF 25V K		C963	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	
C413	QC20202-155Z	C CAPACITOR	1.5uF 25V Z		C964	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C965	QEKJ1AM-227Z	E CAPACITOR	220uF 10V M		R308	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
C966	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R323	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C967	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R324	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
C968	NCB31EK-473X	C CAPACITOR	0.047uF 25V K		R325	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
C969	NCB31EK-473X	C CAPACITOR	0.047uF 25V K		R326	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
C981	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R327	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C997	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		R328	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
C999	NCS31HJ-101X	C CAPACITOR	100pF 50V J		R329	NRSA63J-513X	MG RESISTOR	51kΩ 1/16W J	
R1	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R330	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R2	NRS181J-220X	MG RESISTOR	22Ω 1/8W J		R333	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R3	NRS181J-220X	MG RESISTOR	22Ω 1/8W J		R334	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R4	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R335	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R5	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R336	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R6	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J		R337	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R7	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R338	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R8	NRS181J-0R0X	MG RESISTOR	0Ω 1/8W J		R339	NRSA63J-513X	MG RESISTOR	51kΩ 1/16W J	
R9	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		R340	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R12	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R343	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R14	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R344	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R31	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J		R345	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R32	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R346	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R33	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R347	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R34	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R348	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R35	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J		R349	NRSA63J-513X	MG RESISTOR	51kΩ 1/16W J	
R36	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		R350	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R37	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J		R353	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R38	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		R354	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R39	NRSA63J-622X	MG RESISTOR	6.2kΩ 1/16W J		R355	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R40	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R356	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R42	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R357	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R43	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R358	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R44	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R359	NRSA63J-513X	MG RESISTOR	51kΩ 1/16W J	
R52	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R360	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R81	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		R371	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R82	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		R372	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R91	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		R373	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R92	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		R374	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R101	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R375	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R102	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R376	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R103	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R377	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R104	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R378	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R105	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R381	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R106	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R382	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R107	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R383	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R110	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R384	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R111	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R385	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R112	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R386	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R113	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R387	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R114	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R388	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	
R115	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R401	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R116	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R402	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R117	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R403	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R141	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R404	NRSA63J-1R0X	MG RESISTOR	1Ω 1/16W J	
R151	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R411	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R155	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J		R412	NRSA63D-682X	MG RESISTOR	6.8kΩ 1/16W D	
R161	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R413	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R162	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R414	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R163	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R415	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R164	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R416	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R165	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R417	NRSA63D-181X	MG RESISTOR	180Ω 1/16W D	
R166	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		R421	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R167	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R422	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R168	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R423	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R169	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R424	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J	
R170	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R425	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R171	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R426	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R172	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R427	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R173	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R428	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R191	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R429	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R192	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J		R431	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R193	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R432	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R302	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R433	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R303	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R434	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J	
R304	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R435	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R305	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R436	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R306	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R437	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J	
R307	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		R438	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
					R439	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R441	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R804	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R442	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R805	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R451	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R806	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R452	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R807	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R461	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		R808	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R462	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		R809	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R463	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		R810	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R701	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R821	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R702	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R822	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R703	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R842	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R704	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J		R843	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R705	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J		R881	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R706	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J		R882	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R707	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R883	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R708	NRS181J-331X	MG RESISTOR	330Ω 1/8W J		R885	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R709	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J		R886	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R710	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R887	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R711	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R888	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R712	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J		R889	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R713	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R891	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R714	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J		R892	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R715	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J		R894	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R716	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J		R901	QRE142J-102X	C RESISTOR	1kΩ 1/4W J	
R717	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R902	NRSA63J-912X	MG RESISTOR	9.1kΩ 1/16W J	
R718	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R903	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R719	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R909	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R721	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R910	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R722	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R914	NRS181J-221X	MG RESISTOR	220Ω 1/8W J	
R725	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R921	NRS181J-0R0X	MG RESISTOR	0Ω 1/8W J	
R726	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R923	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
R727	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J		R924	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R728	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R925	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J	
R729	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R926	NRSA63J-394X	MG RESISTOR	390kΩ 1/16W J	
R730	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R927	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R732	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R928	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R733	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R961	NRS181J-0R0X	MG RESISTOR	0Ω 1/8W J	
R735	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R962	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R736	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R967	NRS181J-0R0X	MG RESISTOR	0Ω 1/8W J	
R737	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R968	NRS181J-0R0X	MG RESISTOR	0Ω 1/8W J	
R738	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R969	NRS181J-0R0X	MG RESISTOR	0Ω 1/8W J	
R739	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R973	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R740	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		R974	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R743	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R975	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R744	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J		R976	NRSA63J-563X	MG RESISTOR	56kΩ 1/16W J	
R745	NRSA63J-106X	MG RESISTOR	10MΩ 1/16W J		R977	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R746	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R981	NRS181J-222X	MG RESISTOR	2.2kΩ 1/8W J	
R749	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R982	NRS181J-222X	MG RESISTOR	2.2kΩ 1/8W J	
R750	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		RA31	NRZ0065-222X	NET RESISTOR	2.2kΩ	
R751	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J		RA721	NRZ0065-222X	NET RESISTOR	2.2kΩ	
R755	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		RA723	NRZ0065-103X	NET RESISTOR	10kΩ	
R756	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J						
R757	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		L1	NQL334J-4R7X	COIL	4.7uH J	
R758	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		L31	NQL114K-470X	INDUCITOR	47uH K	
R759	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		L401	NQR0007-002X	FERRITE BEADS		
R760	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		L411	NQL114K-470X	INDUCITOR	47uH K	
R761	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		L421	NQR0007-002X	FERRITE BEADS		
R762	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		L430	NQR0007-002X	FERRITE BEADS		
R763	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		L431	NQR0007-002X	FERRITE BEADS		
R765	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		L721	NQL38DK-330X	COIL	33uH K	
R766	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		L722	NQL114K-470X	INDUCITOR	47uH K	
R768	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		L901	QQR1378-002	COIL		
R769	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		L902	NQL56CK-220X	COIL	22uH K	
R770	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		L924	NQL56CK-220X	COIL	22uH K	
R771	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		L925	NQL71EM-330X	COIL	33uH M	
R772	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J		L927	NQLB7GM-100X	COIL	10uH M	
R773	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J						
R774	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		CN141	QGA2006C1-04	CONNECTOR	W-B (1-4)	
R775	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		CN191	QGA2501C3-03Z	CONNECTOR	W-B (1-3)	
R776	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		CN411	QGA2501F1-02	CONNECTOR	W-B (1-2)	
R777	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		CN421	QGA2501C3-03Z	CONNECTOR	W-B (1-3)	
R779	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		CN701	QNZ0605-001	CAR CONNECTOR		
R780	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		CN821	QGA2001C1-02	CONNECTOR	W-B (1-2)	
R781	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J		CN901	QNZ0607-001	CAR CONNECTOR		
R782	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J		CN961	QGB2027M3-30S	CONNECTOR	B-B (1-30)	
R799	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J		CN962	QGF0534F1-45X	CONNECTOR	FFC/FPC (1-45)	
R801	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		CN963	QGB2027L8-30X	CONNECTOR	B-B (1-30)	
R802	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		J331	QNN0490-001	PIN JACK		
R803	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		J801	QNZ0095-001	CONNECTOR		

△ Symbol No.	Part No.	Part Name	Description	Local
K401	NQR0007-002X	FERRITE BEADS		
K402	NQR0007-002X	FERRITE BEADS		
K411	NQR0201-004X	FERRITE BEADS		
K922	NQR0201-004X	FERRITE BEADS		
PP1	QZW0010-001	STYLE PIN		
PP2	QZW0010-001	STYLE PIN		
S701	QSW0451-001	DETECT SW		
S702	QSW0451-001	DETECT SW		
S723	QSW1049-001Z	TACT SW		
TH721	NAD0028-103X	N THERMISTOR	10kΩ	
△ TU21	QAU0312-002	TUNER PACK		
W21	QAM0105-003	CAR CABLE		
X31	QAX0616-001Z	CRYSTAL	10.250MHz	
X721	QAX0617-001Z	CRYSTAL	12.500MHz	
X722	QAX0401-001	CRYSTAL	32.768KHz	

## Switch board

Block No. [0][2]

△ Symbol No.	Part No.	Part Name	Description	Local
IC601	PT6523LQ-L	LCD DRIVER		
IC602	RPM7338-V4	RM.RECEIVER		
Q640	2SB624/4/-X	TRANSISTOR		
Q641	UN2211-X	TRANSISTOR		
D601	SML-310VT/JK/-X	LED		
D602	SML-310VT/JK/-X	LED		
D603	SML-310VT/JK/-X	LED		
D604	SML-310VT/JK/-X	LED		
D605	SML-310VT/JK/-X	LED		
D606	SML-310VT/JK/-X	LED		
D607	SML-310VT/JK/-X	LED		
D608	SML310BA1T-X	LED		
D609	SML310BA1T-X	LED		
D610	SML-310VT/JK/-X	LED		
D611	SML-310VT/JK/-X	LED		
D612	SML-310VT/JK/-X	LED		
D613	SML-310VT/JK/-X	LED		
D614	SML-310VT/JK/-X	LED		
D615	SML-310VT/JK/-X	LED		
D616	SML-310VT/JK/-X	LED		
D617	SML-310VT/JK/-X	LED		
D618	SML-310VT/JK/-X	LED		
D619	SML-310VT/JK/-X	LED		
D640	MA152WK-X	SI DIODE		
D641	UDZS5.1B-X	Z DIODE		
D642	MA111-X	SI DIODE		
D643	MA8062/M/-X	Z DIODE		
D645	NSPW310BS/BRS/	LED		
D646	NSPW310BS/BRS/	LED		
C601	NCB31HK-223X	C CAPACITOR	0.022uF 50V K	
C602	NCS31HJ-681X	C CAPACITOR	680pF 50V J	
C603	NBE20JM-106X	TA E CAPACITOR	10uF 6.3V M	
C611	NCB31HK-123X	C CAPACITOR	0.012uF 50V K	
C612	NBE20JM-475X	TA E CAPACITOR	4.7uF 6.3V M	
C620	NCB31HK-473X	C CAPACITOR	0.047uF 50V K	
R601	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R602	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R603	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R604	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R605	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R606	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R607	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R608	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R609	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R610	NRSA63J-182X	MG RESISTOR	1.8kΩ 1/16W J	
R611	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R612	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J	
R613	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R614	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	

△ Symbol No.	Part No.	Part Name	Description	Local
R620	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R621	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R622	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R623	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R624	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R630	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R631	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R632	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R633	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R634	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R636	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R638	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R640	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R641	NRSA02J-121X	MG RESISTOR	120Ω 1/10W J	
R642	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
R643	NRSA02J-201X	MG RESISTOR	200Ω 1/10W J	
R644	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R646	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R648	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R651	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R652	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R653	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R654	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R655	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R656	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R657	NRSA63J-513X	MG RESISTOR	51kΩ 1/16W J	
R658	NRSA63J-184X	MG RESISTOR	180kΩ 1/16W J	
R660	NRSA02J-391X	MG RESISTOR	390Ω 1/10W J	
R661	NRSA02J-391X	MG RESISTOR	390Ω 1/10W J	
R670	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R672	NRSA02J-471X	MG RESISTOR	470Ω 1/10W J	
R673	NRSA02J-473X	MG RESISTOR	47kΩ 1/10W J	
R674	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
R691	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R692	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	

CN601	NNZ0085-001	CAR CONNECTOR
EN601	QSW1115-002	ROTARY ENCODER
J601	QNS0245-001	AUX JACK
S601	NSW0206-001X	TACT SWITCH
S602	NSW0206-001X	TACT SWITCH
S603	NSW0206-001X	TACT SWITCH
S604	NSW0206-001X	TACT SWITCH
S605	NSW0206-001X	TACT SWITCH
S606	NSW0206-001X	TACT SWITCH
S607	NSW0206-001X	TACT SWITCH
S608	NSW0206-001X	TACT SWITCH
S609	NSW0206-001X	TACT SWITCH
S610	NSW0206-001X	TACT SWITCH
S611	NSW0206-001X	TACT SWITCH
S612	NSW0206-001X	TACT SWITCH
S613	NSW0206-001X	TACT SWITCH
S614	NSW0206-001X	TACT SWITCH
S616	NSW0206-001X	TACT SWITCH
S617	NSW0206-001X	TACT SWITCH

## Front end board

Block No. [0][3]

△ Symbol No.	Part No.	Part Name	Description	Local
IC201	BA5835FM-X	IC		
IC251	BD6671FM-X	IC		
IC301	MN2DS0003AA-H	IC		
IC302	BA00HC5WF-X	IC		
IC304	S-80827CNNB-G-W	IC		
IC398	SG32M90TFIR3	IC(MICRO C ROM)		
IC398	SG32M90TFIR31B	IC(PROGRAMED)		
IC399	K4S281632F-UC75	IC(DIGITAL)		
IC399	or EDS1216AATA-75	IC(DIGITAL)		
IC401	AK4385ET-X	IC		
IC411	NJM4565V-X	IC		
IC481	BR93L66F-W-X	IC		

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
Q101	2SB1424/R/-W	TRANSISTOR			C316	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q102	2SC4617/R/-X	TRANSISTOR			C317	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q103	2SB1424/R/-W	TRANSISTOR			C318	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q104	2SC4617/R/-X	TRANSISTOR			C319	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q105	DTA114EE-X	DIGI TRANSISTOR			C320	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q231	DTC114EE-X	DIGI TRANSISTOR			C321	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q301	DTC144EE-X	DIGI TRANSISTOR			C322	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
Q302	DTC144EE-X	DIGI TRANSISTOR			C323	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
					C324	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C1	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C325	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C2	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C326	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C3	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C330	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C4	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C331	NCB31CK-333X	C CAPACITOR	0.033uF 16V K	
C5	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C332	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C6	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C333	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C7	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C334	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C8	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C335	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C9	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C337	NCB31HK-183X	C CAPACITOR	0.018uF 50V K	
C10	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C338	NCB31HK-562X	C CAPACITOR	5600pF 50V K	
C11	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C339	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C12	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C340	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C13	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C341	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C14	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C347	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C15	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C348	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C16	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C349	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C17	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C350	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C18	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C351	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C19	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C352	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C20	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C356	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C21	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C364	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M	
C101	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C365	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C102	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C366	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C103	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C369	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M	
C104	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C371	NCB21CK-105X	C CAPACITOR	1uF 16V K	
C105	NBE41AM-476X	TA E CAPACITOR	47uF 10V M		C380	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C106	NBE41AM-476X	TA E CAPACITOR	47uF 10V M		C384	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C107	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C391	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C108	NBE41AM-476X	TA E CAPACITOR	47uF 10V M		C392	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C111	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C393	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C112	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C395	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C113	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C396	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C201	NEAF1CM-107X	E CAPACITOR	100uF 16V M		C397	NBE20JM-226X	TA E CAPACITOR	22uF 6.3V M	
C202	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C398	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C203	NCS31HJ-271X	C CAPACITOR	270pF 50V J		C399	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C204	NDC31HJ-151X	C CAPACITOR	150pF 50V J		C401	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C205	NCB31HK-681X	C CAPACITOR	680pF 50V K		C402	NBE41AM-476X	TA E CAPACITOR	47uF 10V M	
C206	NCB31HK-561X	C CAPACITOR	560pF 50V K		C403	NCB31HK-331X	C CAPACITOR	330pF 50V K	
C211	NEAF1CM-107X	E CAPACITOR	100uF 16V M		C404	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
C212	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C411	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C213	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C412	NBE41AM-476X	TA E CAPACITOR	47uF 10V M	
C221	NCB31HK-223X	C CAPACITOR	0.022uF 50V K		C421	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C222	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C422	NBE41AM-476X	TA E CAPACITOR	47uF 10V M	
C251	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C431	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C252	NEAF1CM-107X	E CAPACITOR	100uF 16V M		C432	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C253	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C433	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C254	NBE21AM-106X	TA E CAPACITOR	10uF 10V M		C451	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C255	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C452	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C256	NCB31CK-473X	C CAPACITOR	0.047uF 16V K		C453	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C257	NCB31HK-102X	C CAPACITOR	1000pF 50V K		C454	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C258	NCB31HK-102X	C CAPACITOR	1000pF 50V K		C481	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C259	NCB31HK-102X	C CAPACITOR	1000pF 50V K		C491	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C264	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C521	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C265	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C522	NBE41AM-476X	TA E CAPACITOR	47uF 10V M	
C266	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		C531	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C267	NCB31HK-103X	C CAPACITOR	0.01uF 50V K		C532	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C268	NCB31HK-153X	C CAPACITOR	0.015uF 50V K		C533	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C301	NEAF0GM-227X	E CAPACITOR	220uF 4V M						
C302	NBE40JM-476X	TA E CAPACITOR	47uF 6.3V M		R101	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C305	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R102	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C307	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R103	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J	
C308	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R104	NRSA63J-303X	MG RESISTOR	30kΩ 1/16W J	
C309	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R105	NRS125J-270X	MG RESISTOR	27Ω 1/2W J	
C310	NCB31HK-102X	C CAPACITOR	1000pF 50V K		R106	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J	
C311	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R107	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
C312	NCB21CK-105X	C CAPACITOR	1uF 16V K		R108	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
C313	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R109	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
C314	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R110	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
C315	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R111	NRSA63J-243X	MG RESISTOR	24kΩ 1/16W J	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R112	NRSA63J-303X	MG RESISTOR	30kΩ 1/16W J		R346	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R113	NRS125J-270X	MG RESISTOR	27Ω 1/2W J		R347	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R114	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J		R348	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R115	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R349	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R116	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J		R350	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R117	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J		R351	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R118	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R352	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R119	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R353	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R120	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R354	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R122	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R355	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R123	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R356	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R125	NRS125J-1R0X	MG RESISTOR	1Ω 1/2W J		R357	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R126	NRSA02J-330X	MG RESISTOR	33Ω 1/10W J		R358	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R201	NRS125J-1R0X	MG RESISTOR	1Ω 1/2W J		R359	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R202	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J		R360	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R203	NRSA63J-303X	MG RESISTOR	30kΩ 1/16W J		R361	NQL093K-1R8X	COIL	1.8uH K	
R204	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R362	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R205	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J		R363	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R206	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R364	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R207	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R365	NRSA63D-911X	MG RESISTOR	910Ω 1/16W D	
R208	NRSA63J-203X	MG RESISTOR	20kΩ 1/16W J		R366	NRSA63D-202X	MG RESISTOR	2kΩ 1/16W D	
R209	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R370	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R211	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R372	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R219	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J		R373	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J	
R220	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J		R380	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R221	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R384	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R222	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R385	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R223	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R386	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R224	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R390	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R231	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J		R391	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R232	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J		R392	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R233	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R393	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J	
R234	NRSA63J-394X	MG RESISTOR	390kΩ 1/16W J		R394	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J	
R235	NRSA63J-682X	MG RESISTOR	6.8kΩ 1/16W J		R396	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R251	NRS125J-R47X	MG RESISTOR	0.47Ω 1/2W J		R399	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R252	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R401	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R253	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R402	NRSA63J-4R7X	MG RESISTOR	4.7Ω 1/16W J	
R254	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R403	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R255	NRSA63J-203X	MG RESISTOR	20kΩ 1/16W J		R404	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R256	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J		R411	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R257	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R421	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R258	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R422	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R259	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		R431	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R260	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J		R432	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R300	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R433	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R301	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R434	NRSA63J-201X	MG RESISTOR	200Ω 1/16W J	
R303	NRSA63J-270X	MG RESISTOR	27Ω 1/16W J		R435	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R306	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R436	NRSA63J-201X	MG RESISTOR	200Ω 1/16W J	
R307	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R437	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R308	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R438	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R309	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J		R441	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R310	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		R442	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R312	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R481	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R313	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R491	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R314	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R492	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R315	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R521	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R316	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R522	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R317	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R531	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R318	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J		R532	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R319	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R533	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R321	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R534	NRSA63J-201X	MG RESISTOR	200Ω 1/16W J	
R322	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R535	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R323	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R536	NRSA63J-201X	MG RESISTOR	200Ω 1/16W J	
R325	NRSA63J-161X	MG RESISTOR	160Ω 1/16W J		R537	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R326	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R538	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R327	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R605	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R328	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J		R606	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R329	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J						
R332	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		L303	NQL044K-100X	COIL	0.26Ω 10uH K	
R333	NRSA63J-163X	MG RESISTOR	16kΩ 1/16W J		L305	NQL093K-1R8X	COIL	1.8uH K	
R334	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J		L306	NQL093K-1R8X	COIL	1.8uH K	
R335	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J		L307	NQL093K-1R8X	COIL	1.8uH K	
R336	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J		L451	NQL044K-100X	COIL	0.26Ω 10uH K	
R337	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J						
R338	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		CN101	QGF0522F1-30W	CONNECTOR	FFC/FPC (1-30)	
R339	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		CN201	QGF1038F1-11X	CONNECTOR	FFC/FPC (1-11)	
R340	NRSA63D-303X	MG RESISTOR	30kΩ 1/16W D		CN202	QGF0523F1-05W	CONNECTOR	FFC/FPC (1-5)	
R345	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		CN402	QGF0522F1-06W	CONNECTOR	FFC/FPC (1-6)	

△ Symbol No.	Part No.	Part Name	Description	Local
CN403	QGF0534F1-45X	CONNECTOR	FFC/FPC (1-45)	
K101	NQR0007-002X	FERRITE BEADS		
K102	NQR0007-002X	FERRITE BEADS		
K301	NQR0502-001X	FERRITE BEADS		
K311	NQR0129-002X	FERRITE BEADS		
K399	NQR0502-001X	FERRITE BEADS		
K401	NQR0022-005X	FERRITE BEADS		
K402	NQR0022-005X	FERRITE BEADS		
K403	NQR0022-005X	FERRITE BEADS		
K404	NQR0022-005X	FERRITE BEADS		
K405	NQR0022-005X	FERRITE BEADS		
K406	NQR0022-005X	FERRITE BEADS		
K407	NQR0022-005X	FERRITE BEADS		
K425	NQL093K-1R8X	COIL	1.8uH K	
K441	NQR0022-005X	FERRITE BEADS		
K442	NQR0022-005X	FERRITE BEADS		
K443	NQR0022-005X	FERRITE BEADS		
K444	NQR0022-005X	FERRITE BEADS		
K445	NQR0022-005X	FERRITE BEADS		
K451	NQR0022-005X	FERRITE BEADS		
K452	NQR0022-005X	FERRITE BEADS		
K601	NQR0022-005X	FERRITE BEADS		
SW4	NSW0184-001X	DETECT SW		
SW5	NSW0183-001X	DETECT SW		
TH491	NAD0025-103X	N THERMISTOR	10kΩ	
X351	NAX0730-001X	CRYSTAL		

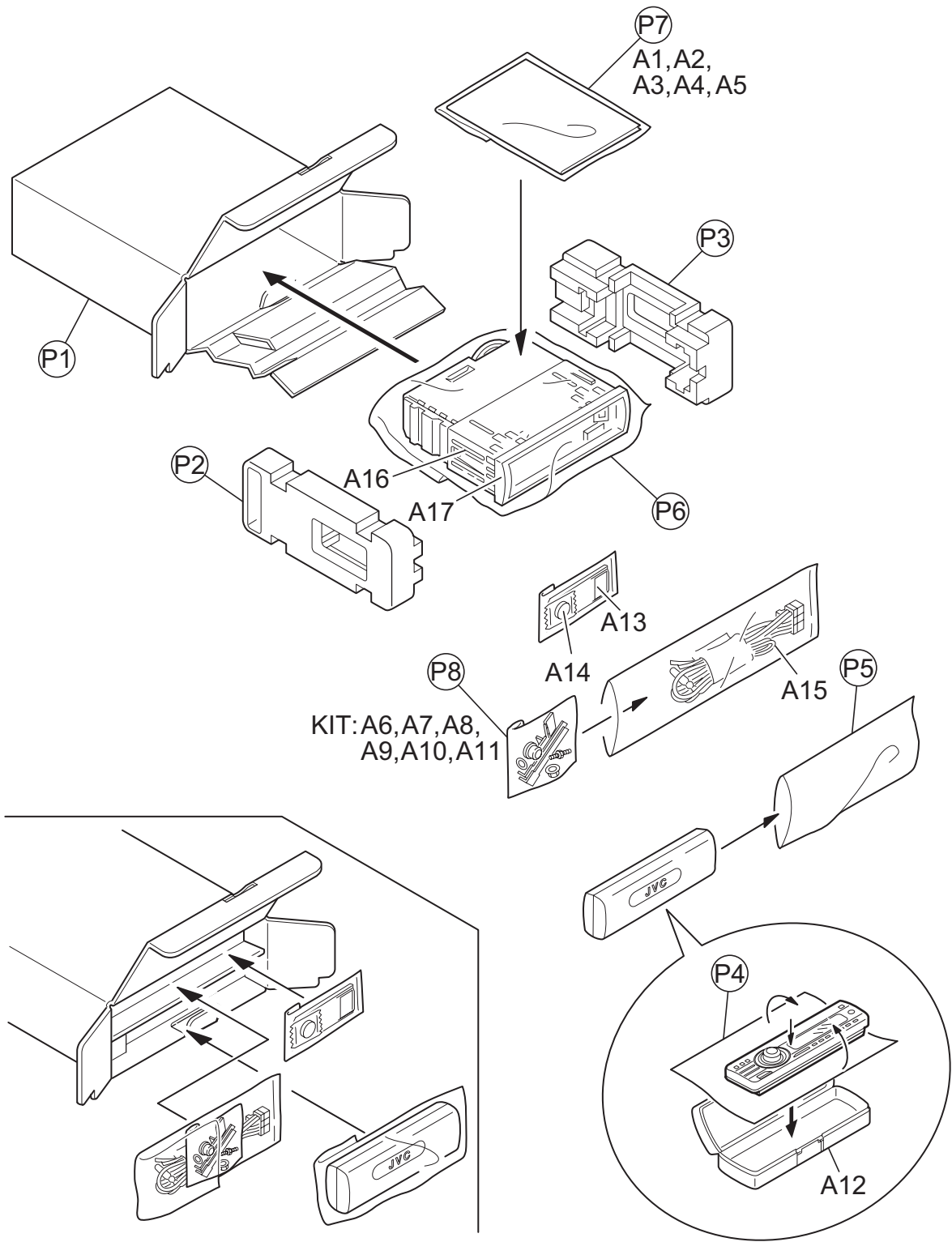


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## Packing materials and accessories parts list

Block No. M 3 M M

No additional / supplemental order of WARRANTY CARDS are available.



## Packing and Accessories

Block No. [M][3][M][M]

△	Symbol No.	Part No.	Part Name	Description	Local
	A 1	GET0277-001B	INST BOOK	ENG,SPA,FRE	
	A 2	GET0277-002A	INSTALL MANUAL	ENG,SPA,FRE	
	A 3	-----	WARRANTY CARD	BT-52006-2	
	A 4	-----	WARRANTY CARD	BT-51029-2	
	A 5	BT-51034-2	REGISTRATION CARD		
	A 6	VKZ4027-202	PLUG NUT		
	A 7	VKH4871-003	MOUNT BOLT		
	A 8	VKZ4328-003	LOCK NUT		
	A 9	QYWWS53A008ZA	WASHER	0mm/5.3mm	
	A 10	GE40130-002A	HOOK	(x2)	
	A 11	LV41478-002A	CORD CONNECTOR		
	A 12	FSJB3002-30C	HARD CASE		
	A 13	RM-RK230	REMOCON UNIT		
	A 14	-----	BATTERY		
△	A 15	QAM0687-001	POWER CORD		
	A 16	GE20137-003A	MOUNTING SLEEVE		
	A 17	GE20149-010A	TRIM PLATE		
	KIT	SRW-ADV6160J	SCREW PARTS KIT	A6,A7,A8,A9,A10,A11	
	P 1	GE31525-001A	CARTON		
	P 2	LV10777-R02A	CUSHION(L)		
	P 3	LV10778-R02A	CUSHION(R)		
	P 4	FSYH4036-068	SHEET		
	P 5	QPA01003003	POLY BAG	10cm x 30cm	
	P 6	QPC03004315P	POLY BAG	30cm x 43cm	
	P 7	FSPG4002-001	POLY BAG		
	P 8	QPA00801205	POLY BAG	8cm x 12cm	